



QUARTERMASTER
CORPS MANUAL

QMC 25-1

INSPECTION HANDBOOK
SUBSISTENCE



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A2

ARMY SERVICE FORCES
OFFICE OF THE QUARTERMASTER GENERAL

NOVEMBER

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Office of THE QUARTERMASTER GENERAL
Washington 25, D. C., 15 November 1944

QMC Manual 25-1 is published for the information and guidance of all concerned.
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E. B. GREGORY
Major General
The Quartermaster General

NUMBERING SYSTEM OF QUARTERMASTER CORPS MANUALS

Each manual is identified by the symbol of the originating agency, as given below, followed by a number indicating the numerical sequence of the manual; i.e., QMC 22-1 identifies the first manual prepared by Service Installations Division.

	<u>BASIC PUBLICATION</u> <u>CONTROL SYMBOL</u>		<u>BASIC PUBLICATION</u> <u>CONTROL SYMBOL</u>
Executive Office	QMC 11-	Organization Planning and Control	QMC 19-
Fiscal Division	QMC 12-	Personnel Division	QMC 20-
Fuels and Lubricants	QMC 13-	Procurement Division	QMC 21-
General Administrative Services	QMC 14-	Service Installations	QMC 22-
International	QMC 15-	Storage and Distribution	QMC 23-
Memorial	QMC 16-	Subsistence	QMC 24-
Military Planning	QMC 17-	Headquarters, Quartermaster Inspection Service	QMC 25-
Military Training	QMC 18-	Market Center System	QMC 26-





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Document
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Foreword

To inspect food enough to feed ten million fighting men is a job that inevitably presents complex problems. As the Army's food-procuring agency, the Quartermaster Corps has that job to do, and those problems to solve. This handbook is designed to foresee and provide answers to some of the inspection difficulties that will arise.

Fortunately, the Quartermaster Corps does not have to shoulder the inspection burden entirely alone. Valuable assistance is obtained regularly from the Army Medical Department and frequently from civilian inspection agencies. However, where there is division of effort, there may also be duplication of effort. One purpose of the handbook is to delimit the activities of the several agencies involved in inspecting Army subsistence, and to describe the interrelations of these activities.

Finally, the handbook assembles in one publication all necessary instructions—instructions which previously were scattered—for administering the program of subsistence inspection. By following the system prescribed in the handbook, purchasing and other subsistence officers can promote efficient inspection, and help to assure the expeditious delivery of high-quality foodstuffs to troops at home and abroad.

RECORD OF REVISIONS

INSTRUCTIONS:

Changes to this handbook will be published as complete new pages. As each change is received, it should be inserted in its proper place in the text, and the information in the table below indicated on this sheet. This will permit the reader to tell at a glance exactly what portions of the handbook have been changed.

Suggestions for changes should be forwarded through channels to:

OFFICE OF THE QUARTERMASTER GENERAL
Attention: SUBSISTENCE DIVISION
Washington 25, D. C.

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2			10		
3			11		
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SECTION I

Program of inspection publications

1. **ASF Inspection Manual, M608.**

This manual sets forth the general duties and responsibilities of the technical services in performing inspection of material, supplies, and equipment. It states the guiding inspection policies and principles common to the technical services for administering and accomplishing the inspection task. It does not, however, go into detail on matters requiring particular or specialized treatment within the services.

2. **Quartermaster Corps Inspection Manual, QMC-M608.**

This is the basic inspection publication of the Quartermaster Corps. It sets forth quartermaster policies for the inspection of supplies, material, and equipment purchased by the Procurement Division, Office of The Quartermaster General. It is addressed as a directive to all administrative officials of the Quartermaster Corps Inspection Service, which is responsible for the inspection of such supplies, material, and equipment. The manual does not apply, however, to the inspection of fuels and lubricants or to the inspection of subsistence. Fuels and lubricants are procured and inspected as prescribed by the Fuels and Lu-

bricants Division, Office of The Quartermaster General. Subsistence supplies are procured by the Subsistence Division, Office of the Quartermaster General, and inspected as set forth in the present handbook.

3. **Quartermaster Corps Inspection Handbook — Subsistence, QMC 25-1.**

a. Purpose.—This handbook presents Quartermaster Corps policy, implementing the provisions of ASF Inspection Manual, M608. It prescribes a program of inspection for subsistence items which the Quartermaster Corps procures and distributes. It outlines the organization, activities, and interrelations of the governmental agencies involved in subsistence inspection, including, besides the Quartermaster Corps itself, the Medical Department of the Army, the U. S. Department of Agriculture, and the Food and Drug Administration. Since it is limited to basic doctrine, the handbook is intended not so much for the individual subsistence inspector as for the officers who must initiate or supervise inspection: the purchasing and contracting officer, the shipping officer, the receiving officer, and the storage officer.

b. Scope.—The handbook includes only the broad aspects of subsistence inspection in the zone of the interior. For a given item of subsistence, or a related group of items, it prescribes who shall make each inspection required, from the time of purchase to the time of consumption; where and when each inspection shall be made; and what the purpose of each inspection shall be. The handbook is not concerned with the manner of inspecting any item. Obviously, to describe procedures for determining grade, quality, and condition of the hundreds of quartermaster-procured subsistence items would require more space than is available in a single handbook. This is the function of Standard Inspection Procedure pamphlets, specifications and standards, and the stated requirements of individual contracts.

c. Format.—(1) *Loose-leaf binding*—This handbook is published in loose-leaf form so that added or changed pages can be inserted in their proper places in the book.

(2) *Changes*.—All changes will be issued as new pages to replace old pages. New pages will be issued in a numbered series of revisions (REVISION No. 1, REVISION No. 2, etc.), together with a covering form showing the revision number and the numbers of the revised

pages. Each revised page will have the same page number as the page it replaces. When the corrected text requires more pages than the ones replaced, the additional pages will carry the same number, followed by letters of the alphabet (7-a, 7-b, 7-c, etc.). Each revised page number will be followed by the words "REVISION No. _____."

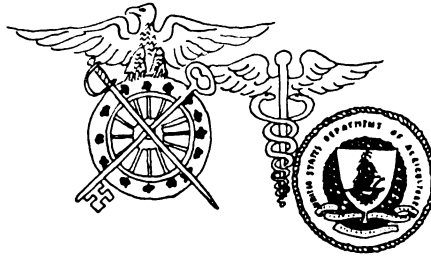
(3) *Record of revisions sheet*.—This sheet, in the front of the handbook, will be used to post each revision received. If the revisions are not received in numerical sequence, starting with No. 1, or if all the pages listed in a given revision are not received, users of the handbook should immediately request the missing material from the appropriate distributing agency.

4. Standard Inspection Procedure pamphlets

These pamphlets will be prepared and distributed only as needed. Each "S.I.P." will contain specific instructions in the methods of inspecting a particular subsistence item or a group of similar items. The pamphlets will be issued as practical, to-the-point supplements to this handbook, intended for the information and guidance of personnel who actually perform subsistence inspections.

SECTION II

Subsistence inspection — General



5. Inspection policy.

a. Responsibilities.—It is the responsibility of the Quartermaster Corps to see that the subsistence supplies which it procures conform fully to contract and specification requirements. In carrying out this responsibility, the Quartermaster Corps is regularly assisted by the Army Medical Department. In addition, the inspection services of the U. S. Department of Agriculture and of the Food and Drug Administration may be utilized.

b. Authority to accept or reject.—Inspections made for the Quartermaster Corps by other agencies are usually advisory in nature, with the exception of those made by Army medical and veterinary personnel to determine soundness and sanitation. On the basis of type, grade, and quality, quartermaster purchasing and receiving officers have final authority to accept or reject products. Quartermaster officers will not, however, accept products condemned by qualified personnel of the Medical Department as unsound or unfit for human consumption.

6. Quartermaster Corps subsistence inspection organization.

a. Depot inspectors. — (1) *At plants.* — Procuring depots employ qualified inspectors to

operate in many plants that manufacture or process certain food products for the Army. Some of these inspectors travel from plant to plant. Others are permanently assigned to specific plants, particularly to plants that have a large volume or that consistently deliver products of borderline quality. The duties of these men include inspection of plants and their operation, as well as inspection of the products purchased. Products inspections will consist of complete examinations for type, grade, quality, soundness, and quantity, and for compliance with specifications and contract terms.

(2) *At receiving depots.*—Representatives of depot accountable officers will inspect all subsistence products (except meat, meat foods, and dairy products) received at depots where they are employed. If the quality and grade of products have been previously determined at the point of origin, inspectors at receiving depots will check them only for quantity and condition upon arrival. If origin inspection was not made, products will be given complete inspections when received at the depot.

b. Marketing specialists.—These include both civilian and officer experts who procure and inspect many items of perishable subsistence for market centers. They are stationed at assembly

and distribution points and at field buying offices, as well as in the market centers themselves. Inspections performed by marketing specialists are limited to nonanimal products received, stored, and shipped by market centers. Occasionally they may inspect fresh fruits and vegetables, at origin, but most of this work is done by Department of Agriculture inspectors.

c. Associate marketing specialists and inspectors.—These are personnel whom market centers assign permanently to some of the larger posts, camps, and stations. Usually they are civilians who have had experience in inspecting perishable foods. Their function is to assist station sales officers by making destination inspections of all fresh fruits and vegetables procured through the market center program and through local purchase.

d. Sales officers.—(1) *Duties.*—The station sales officer is responsible for the inspection of nonanimal products received at his station. Usually he inspects products for quantity and condition only. However, on some items, particularly those purchased locally, he may have to perform complete inspections for grade, quality, and condition, and for compliance with special contract requirements.

(2) *Assistance.*—Routine inspection work may be delegated by the sales officer to an officer or an enlisted man on his staff. When an associate marketing specialist or a market center inspector (see c above) is permanently assigned to the station, he relieves the sales officer of the task of inspecting fresh fruits and vegetables. If a specialist or an inspector is not assigned, the servicing market center may train the sales officer or a member of his staff in the methods of inspecting these items. On the sales officer's request, the market center also sends qualified personnel to solve inspection problems, provided such personnel are available.

7. Medical Department inspection organization.

The Surgeon General is charged with the duty of maintaining the health of the Army. Thus the nutritional adequacy and the fitness for

human consumption of all foods used by the Army are of real concern to the Medical Department. This is particularly true of highly perishable foods, such as meat, meat foods, and dairy products, which are capable of transmitting disease to man and are favorable media for the growth of micro-organisms.

a. Veterinary Service.—The Veterinary Service is charged with the responsibility of determining whether foods of animal origin are sound, fit for human consumption, and of prop-



er quality. Veterinary inspections are not limited to the products themselves, but include also the establishments where they are produced, stored, and handled.

(1) *Service command veterinarian.*—The service command veterinarian coordinates veterinary activities in his service command. He works under the jurisdiction of the service command surgeon, and acts as his adviser on veterinary matters. He oversees the program of veterinary inspection of plants and of meat and dairy products in his service command.

(2) *Depot veterinarian.*—Depot veterinarians operate directly under the depot commander. They supervise at their depots the veterinary inspection of all meat, meat foods, and dairy products procured, received, stored, and shipped.

(3) *Market center veterinarians.*—(a) *Field Headquarters veterinarian.*—Throughout the market center system, the Field Headquarters veterinarian coordinates and directs the program of veterinary inspection. He is responsible to the Commanding Officer, Field Headquarters.

(b) *Regional market center veterinarians.*—Most regional market centers have assigned veterinary personnel who inspect meat, meat foods, and dairy products received, stored, and shipped by the market centers. Market center veterinarians report to the officer in charge of their market center, and through him to the Field Headquarters veterinarian.

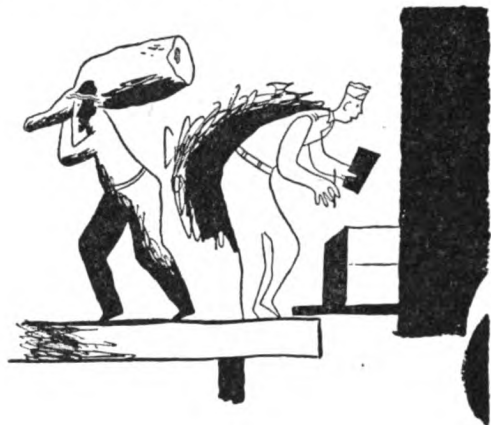
(4) *Post veterinarians.*—The post veterinarian is on the staff of the post surgeon. Inspection of meat, meat foods, and dairy products received at the station is one of his major duties. Most items received through market center or depot purchase will have been inspected at origin for grade and quality; the post veterinarian examines such items for condition only. He must be prepared, however, to conduct more thorough inspections whenever purchase instruments so require. He must make complete acceptance inspections of locally purchased meat, meat foods, and dairy products, including items bought by post exchanges and concessionaires. Other inspections to be made by the post veterinarian include periodic checks of meat, meat foods, and dairy products in storage at the station, and final condition inspections of products prior to their issue or sale.

b. Medical Corps. — (1) *Post surgeon.* — Routine inspection is not among the post surgeon's primary duties. It is his responsibility, however, to maintain the health of troops at the station. Accordingly, he may make inspections of foods, subsistence warehouses, sales stores, exchanges, kitchens, and mess halls whenever it seems necessary. He may pass or condemn any item to be consumed by troops. It is not his function to inspect any item for type, grade, or quality. Whether it is safe for human consumption is his only concern.

(2) *Tactical surgeons.*—When food is delivered to an organization away from its home station, it will be inspected by a surgeon attached or assigned to the organization, or by his representative. The surgeon should check the condition of products upon receipt, and again before issue if they remain on hand any appreciable time.

8. Units and organizations.

The mess officer of a unit or organization must see that all food received in the mess is clean and wholesome, and in full quantity or measure. If food is stored in the unit kitchen, he should inspect it while in storage, and again before it is prepared for consumption. In the absence of the mess officer, the mess sergeant makes all required inspections.



9. U. S. Department of Agriculture.

a. Grading and inspection service.—Grading and inspecting foodstuffs are important activities of the Department of Agriculture. Its inspectors and licensed samplers, trained in all lines of subsistence inspection, are located nearly everywhere that bulk quantities of food are produced, processed, or sold. Upon application, any person or organization financially interested in a transaction involving the sale of food can obtain a Federal grading inspection. The Quartermaster Corps makes frequent use of this grading service, thereby conserving its own manpower and preventing duplication of effort. Purchasing and contracting officers will stipulate in contracts and procuring instruments whether Department of Agriculture inspection is to be obtained.

b. Organization for subsistence inspection.—The Office of Distribution, War Food Administration, is responsible for food inspection made by the Department of Agriculture. For procurement and inspection purposes the Office of Distribution is divided into several operating branches, which include:

- (1) Livestock and Meats Branch.
- (2) Dairy and Poultry Branch.
- (3) Grain Products Branch.
- (4) Fruits and Vegetables Branch.

(a) Fresh Fruits and Vegetables Division.

(b) Processed Foods Division.

10. Food and Drug Administration.

a. Functions.—The primary function of the Food and Drug Administration is to enforce the Federal Food, Drug, and Cosmetic Act, which prohibits the interstate distribution and the importation of adulterated or misbranded products. The administration has the power to seize any article of food that is distributed or sold in violation of the Act.

b. Relations with the Quartermaster Corps.

(1) *Routine inspections.*—The Food and Drug Administration inspects plants and packing houses where food is processed. It also analyzes products coming within the jurisdiction of the Federal food laws. In the regular course of their work, food and drug inspectors may uncover illegal practices on the part of firms which are supplying the Army. In such cases the Quartermaster Corps is advised of the situation. Firms whose products have nation-wide distribution are reported to the Office of The Quartermaster General; smaller firms are reported directly to the depots or stations buying from them.

(2) *Visits to Army installations.*—From time to time food and drug inspectors may visit Army installations to analyze suspected products. Upon proper identification of these inspectors, accountable officers will recognize their right to withdraw samples of any subsistence supplies.

c. Specifications.—All Federal and military specifications under which subsistence supplies are purchased contain the stipulation that products must conform in every respect to the Food, Drug, and Cosmetic Act and regulations promulgated thereunder.

11. Transfers of subsistence to other agencies.

a. Agencies involved.—A number of governmental and quasi-governmental agencies procure subsistence supplies through the Quartermaster Corps. For example, bulk quantities of food are transferred to the War Food Administration of the Department of Agriculture. The Navy Department obtains most of its perishables through quartermaster market centers, and most of its nonperishables through quartermaster procuring depots. Other agencies to which subsistence is transferred include the Treasury Department, the War Shipping Administration, the Veterans' Administration, the War Relocation Authority, the State Guard, and the Panama Railroad Company.

b. Inspection.—In general, agencies for which the Quartermaster Corps procures subsistence accept the quartermaster inspection program. Purchases for these agencies (except the War Food Administration) receive the same inspections as quartermaster purchases up to the time of shipment to final destination. Supplies transferred to the War Food Administration are usually examined by its inspectors before shipment from Army installations. All receiving agencies reserve the right to make destination inspections and to reject unsatisfactory items. Such inspections are usually restricted to quantity and condition checks, but may, if the receiving agency so prescribes, include examination for quality and for compliance with specifications and contract provisions. Regardless of the scope of these inspections, however, quartermaster responsibility for inspection ends when the products are shipped to the receiving agencies.



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SECTION III

The subsistence inspector



12. Purpose of inspection.

The two major objectives of all subsistence inspection are to safeguard the health of troops and to protect the financial interests of the Government.

a. Health.—Thorough inspection insures that no spoiled, damaged, or contaminated food is served to troops. This is the first and most important aim of food inspection.

b. Financial protection.—Like any other purchaser, the Army wants to get what it pays for. The inspector's job is to make certain that it does. He protects the interests of the Government by seeing that type, grade, quality, and other factors influencing price are up to contract requirements. In most cases, inspections for acceptability are made at the point of shipment. On delivery at destination, products are rechecked to see that full measure is received and that all items are in good, wholesome condition.

13. Qualifications of the subsistence inspector.

a. Experience and training.—(1) *Experience.*—Subsistence inspection is perhaps the most difficult type of inspection. A manufactured article, such as a bolt, can be tested for strength, measured for size, and observed in operation. The machine that makes one bolt can make other bolts that are practically identical in every way. Rigid specifications can be set for bolts, and those that do not conform precisely to these specifications can be rejected. Subsistence inspection, on the other hand, presents a more difficult problem. No two heads of cabbage are identical; no two carcasses of beef are exactly alike. A specification cannot be set for one head of cabbage, or one carcass of beef, by which all other heads of cabbage or carcasses of beef will be rigidly judged. Inspecting food is chiefly a matter of comparing a given lot with the grades and standards specified in the contract. The inspector must know that quality varies

with time and place. The best cabbage marketed at the beginning and at the end of the growing season is not as good as the best cabbage sold in mid-season; grass-fed steers from Texas may not be as choice as grain-fed steers from Iowa. Until the inspector has seen and compared hundreds of specimens of the product he is inspecting, he will not be fully qualified. He cannot learn his job from books alone.

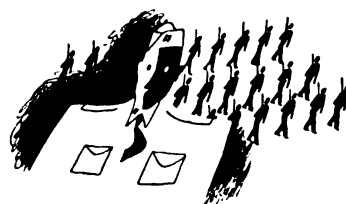
(2) *Training.*—Training is, however, a valuable and necessary adjunct to experience. All officer-inspectors of the Veterinary Corps, for instance, must be graduates of veterinary schools and hold Doctor of Veterinary Medicine degrees. Enlisted men of the Medical Department who are assigned to the Veterinary Service for inspection purposes should be especially qualified by civilian training and experience and should also be graduates of an Army meat and dairy hygiene course. Market center and procuring depot inspectors should be chosen on the basis of technical examinations and backgrounds of extensive experience in food procurement and inspection.

b. Alertness.—The subsistence inspector must be thoroughly familiar with every aspect of his job, and be constantly alert to discover any defects in products. He should be well acquainted with specifications and standards used by quartermaster procuring agencies to describe articles under purchase. In addition, he will be careful to see that special conditions and requirements written into purchase instruments are met by the contractor in every case. The inspector must have a working knowledge of all phases and steps in the production of foodstuffs contracted for. His knowledge must enable him to detect quickly any substitutions in materials, faulty techniques of processing, inferior methods of packaging, and any other undesirable practices. By discovering discrepancies early in the manufacturing process the inspector not only aids the Government but also helps the contractor by pointing out unsatisfactory conditions which, if not corrected in the initial stages, will cause the product to be rejected in a finished form. This constant vigilance promotes prompt deliveries by the contractor and minimizes economic waste.

c. Judgment.—The subsistence inspector must be a person of sound judgment. Situations often arise where he is faced with problems for which no written or direct instructions exist. In these cases he will so act that the interests of the Government are not prejudiced and that contract stipulations are met as expeditiously as possible. The inspector should make important decisions involving inspection policy only after consultation with his superiors. In the routine conduct of his work, however, he must be able to reach intelligent solutions to unforeseen minor problems that confront both the Government and the contractor.

14. Relations with contractors.

a. Authority.—All the weight of the Army is behind the inspector. He is entrusted with a job of vital importance and relied upon to do it well. When a large proportion of the output of a plant is contracted for by the Army, as is often the case, it is within his power to suspend the plant's operations if products do not conform. However, he should use this power wisely, and not abuse it. Protecting the Government is his major concern, and no other interest should be



allowed to interfere. But he should realize that a vendor's failure to meet a point in contract requirements is usually not a deliberate slighting but a deficiency that the inspector can indicate and have rectified in a routine manner. He should also remember that an unnecessary stoppage of production delays delivery of needed food to troops at home and at the fighting fronts.

b. Cooperation.—The inspector will in no way obligate himself to the contractor. His personal relations with the contractor, however, should be of a cooperative nature. The contractor is required to provide the inspector with

desk space, locker space, space for storing Government forms, and such other facilities as are needed in the efficient operation of his work. In turn, the inspector must show consideration for the problems of the contractor. By working together they can attain their legitimate objectives with the least amount of friction.

15. Duties of the inspector.

The subsistence inspector will perform as many of the duties listed below as apply in particular cases, plus any others that may be assigned to him by competent authority:

a. Sanitary inspection of plants and establishments that produce, prepare, manufacture, store, transport, or handle subsistence products for the Army.

b. Inspection of products for sanitary condition and soundness.

c. Quality inspections of products for type, class, grade, and special requirements of individual contracts.

d. Submission of representative samples of products, raw materials, basic components, or

partially processed items to Government or other designated laboratories for analysis and comparison with contract specifications.

e. Inspection of packaging and labeling, packing and marking, for compliance with specifications.

f. Inspection of sanitation, icing, and insulation of cars and trucks used to transport the products.

g. Inspection of loading operations.

h. Inspection of products for quantity and condition upon arrival at a Government installation.

i. Inspection of Government-owned subsistence stores in warehouses, cold-storage plants, and any other places where such stores are held,

j. Maintenance of daily and other regular records of quantities inspected, passed, and rejected, and of such other activities as may be required.

k. Submission to his immediate superior of reports on sanitary conditions, progress of production, labor conditions, and any unusual conditions which may affect contractual relations.

SECTION IV

Specifications and standards



16. Purpose.

a. Specifications.—The purpose of specifications is to give clear and accurate descriptions of items under purchase. Specifications do not include all commercially available types, classes, and grades of any product; they are intended to cover only the types, classes, and grades suitable for Government or Army purchase. They define what is acceptable. Using the specifications, any other pertinent information, and his experience and skill, the inspector must decide whether products meet requirements.

b. Standards.—The function of standards is to differentiate types, grades, and classes of a product. By describing the qualities required of a product within a given type, grade, or class, standards serve as guides to procurement. United States Standards (issued by the Department of Agriculture) are frequently used to amplify specifications. That is, a specification may state that a product, to be acceptable, must equal the requirements of a certain grade as described in the U. S. Standards.

17. Types of specifications.

a. Federal Specifications.—(1) *Description.*—Federal Specifications are prepared by the Federal Specifications Executive Committee,

operating under the U. S. Treasury Department. The War Department is represented on this Committee. Federal Specifications cover commercial articles procured by two or more departments or independent establishments of the Government. They contain technical information necessary to describe the article or material to be procured. For filing and identification purposes, Federal Specifications are serially lettered and numbered.



(2) *Amendments.*—Changes to Federal Specifications are made as amendments, which are printed on green paper to distinguish them from the specifications themselves. Each amendment is dated, and includes all changes in the specification made prior to that date. For example, the fifth amendment to a specification will include the changes made by the first four amendments. Amendments are lettered and numbered to agree with the Federal Specifications to which they pertain.

(3) *Emergency alternates*.—In time of war the Government, as all other purchasers, must accept substitutions which by normal standards would not be bought. Emergency Alternate Federal Specifications have been drawn up to cover these acceptable substitutes. In subsistence, for example, Emergency Alternate Federal Specifications have been issued for packing and packaging materials. As fast as revised Federal Specifications can be prepared, they supersede the emergency alternates. Unsuperseded emergency alternates are canceled when the need for them ceases.

(4) *Distribution*.—The Quartermaster Corps distributes to its food-procurement agencies all Federal Specifications, Amendments, and Emergency Alternate Federal Specifications covering subsistence. Purchasing officers will see that necessary specifications are made available to all military and civilian inspectors who need them.

b. War Department Specifications.—

(1) *U. S. Army Specifications*.—Federal Specifications are not issued for commodities procured solely by one department of the Government. For items peculiar to the Army, the War Department has prepared U. S. Army Specifications. These are like Federal Specifications in content. Also like Federal Specifications, they are changed by published amendments. An Army Specification is usually canceled when a Federal Specification is issued covering similar items or materials. Distribution of Army Specifications for subsistence items will be made to inspectors through quartermaster purchasing agencies. The War Department publishes annually an index of Army Specifications and those Federal Specifications used by the Army. A monthly supplement keeps the index current.

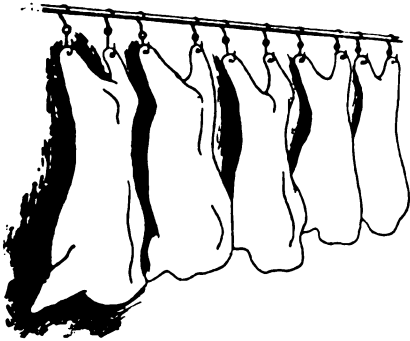
(2) *Quartermaster Corps Tentative Specifications*.—These are emergency specifications designed to supplement Federal Specifications. They correspond to Emergency Alternate Federal Specifications. They are published in semi-permanent, mimeographed form to meet unusual wartime requirements, and are canceled when the emergency ends. Quartermaster Corps Tentative Specifications for subsistence are prepared

and distributed by the Office of The Quartermaster General and by quartermaster food-procuring depots at Jersey City, New Jersey; Chicago, Illinois; and Oakland, California.

(3) *Contracts*.—Frequently in contracts and purchase orders it is necessary to modify normal specifications. In some cases the acceptability of a product may have to be determined on the basis of a general specification, plus certain special requirements written into the purchase instrument. In other cases, market conditions may force the insertion of a clause stating that if normal specifications cannot be met, certain stipulated variations from normal specifications will be accepted. Before making inspections for acceptability, inspectors will study the purchase instrument in order to know exactly what is wanted by the procuring agency.

18. Types of standards.

a. U. S. Standards.—Under Federal laws, the United States Department of Agriculture issues quality-standards for all but a few foods. These published standards are known as U. S. Standards. Not all currently available foods are covered by U. S. Standards, but most of the important items are. As an example, there are now over 100 standards for fresh fruits and vegetables, and more than 70 for processed fruits and vegetables. New standards and revised old standards are published from time to time. The standards usually include a scoring system with points assigned to principal factors determining the quality of the product, and descriptions of how each factor should be rated in arriving at the final score. Individual items in many cases have individual grades peculiar to the item. In terms of commodity groups, however, general grade classifications can be made. Canned, frozen and dried fruits and vegetables, for example, are graded U. S. Grade A (Fancy), U. S. Grade B (Extra Standard or Choice) and U. S. Grade C (Standard). Meats are classified U. S. Grade AA (Prime), U. S. Grade A (Choice), U. S. Grade B (Good), U. S. Grade C (Commercial). Meat grades are also established for the less desirable carcasses, including utility, cutter, and canner.



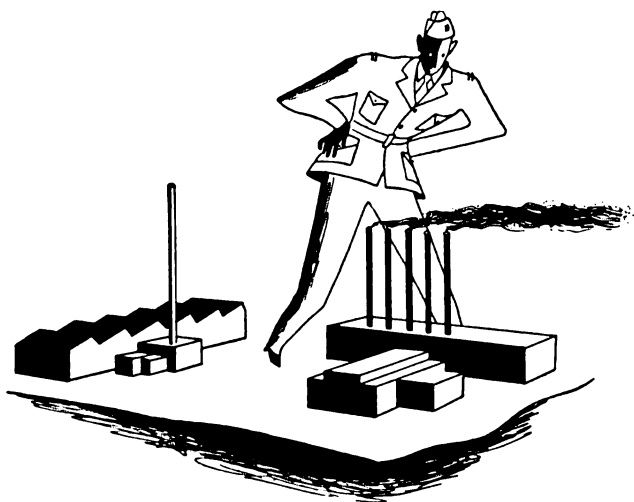
b. Definitions and standards for food.—The Federal Security Administration, under the provisions of the Food, Drug, and Cosmetic Act, is empowered to promulgate definitions and

standards of identity, quality, and fill of containers for foods. The quality and fill standards are minimum standards only. These definitions and standards are currently published in Service and Regulatory Announcements of the Federal Security Agency, Food and Drug Administration.

c. Quartermaster Corps technical bulletins.—The Quartermaster Corps Subsistence Research and Development Laboratory prepares and publishes technical bulletins on subsistence items. The bulletins set standards for purity and quality of products, and for the operation of the plants in which the products are made or processed.

SECTION V

Inspection of plants and establishments



19. General.

a. Definition.—By “plants and establishments” is meant places where food for the Army is produced, manufactured, processed, assembled, stored, or handled, including freight cars, trucks, and ships used to transport such food.

b. Inspecting agencies.—Three agencies are directly concerned in the inspection of plants and establishments: the Quartermaster Corps, the Veterinary Service, and the Department of Agriculture. Inspections are also conducted by the Food and Drug Administration, the U. S. Public Health Service, and various state and municipal public health offices. These latter inspections, however, are made primarily to see that Federal, state, and city food laws are not violated. Generally speaking, the Army accepts plant inspections made by other Federal agencies, within the limitations of their activities. It re-

serves the right, however, to make additional inspections. Inspections made by state and city public health offices will nearly always be followed by occasional or periodic rechecks by Army inspectors.

c. Scope of inspection.—Inspection will include examination of every phase of the plant's operations. In detail, plant inspection will cover all the following points, plus any others that may be peculiar to individual plants; suitability of location; state of repair; sanitation; ventilation and lighting; purity and adequacy of water and ice supply; suitability and condition of equipment; methods of operation; adequacy of storage rooms, packing facilities, and loading docks and platforms; health and personal cleanliness of employees. A deficiency in any of these factors will be ample cause for disapproving the plant as a source of supply.

20. Manufacturing and processing plants.

a. Meat plants.—All meat and meat food products for the Army will be obtained from plants inspected by the Meat Inspection Division, U. S. Department of Agriculture, and/or approved by the Veterinary Service.

(1) *Department of Agriculture.*—Meat plants engaging in interstate commerce must have their facilities inspected and their operations supervised by the Meat Inspection Division, U. S. Department of Agriculture. In normal times this inspection is not extended to plants whose business remains intrastate. During the war period, however, the inspection is available to such plants, provided they are making substantial sales to the Army or other Government agencies. To secure the inspection services, the owner or operator of the plant must make formal application to the Secretary of Agriculture. Meat products sold by federally approved plants are stamped with an establishment number assigned by the Department of Agriculture and the legend "U. S. Inspected and Passed." The stamp signifies not only that the product itself is sound, but also that it was produced or processed under sanitary plant conditions. Whenever possible, quartermaster purchasing and contracting officers will buy from plants whose products carry this evidence of Federal inspection and approval.

(2) *Veterinary Service.*—(a) *Inspection of federally supervised plants.*—In many meat producing and processing plants supervised by the Department of Agriculture, Army veterinary personnel are assigned to make supplementary inspections. Veterinary inspectors in such plants examine products for compliance with special Army requirements; the Department of Agriculture is responsible for plant inspection. Nevertheless, veterinary inspectors must keep alert to discover any deficiencies in plant sanitation or operation, health of employees, and other factors which may contribute to an inferior product. When such deficiencies appear, they should be pointed out to the Department of Agriculture inspector in charge. Unless prompt correction is made, a full report should be delivered to the

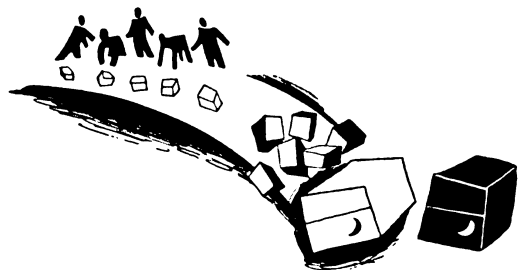
supervising veterinary officer, who will take all necessary action to have the conditions remedied.

(b) *Inspection of plants not federally supervised.*—Under unusual conditions it may be necessary to buy from meat plants which are not federally inspected. Such plants must be approved by the Veterinary Service before purchases can be made.

b. Other manufacturing and processing plants.—These include fruit and vegetable canneries, bakeries, flour and grain mills, and other plants which make or process foodstuffs other than meat, meat foods, and dairy products. Where such plants engage in interstate commerce, they are periodically inspected by the Food and Drug Administration. As far as possible, purchasing officers will procure from plants which receive and pass this inspection. No articles will be purchased from plants specifically condemned as sources of supply by the Food and Drug Administration. All other plants, whether or not inspected by the Food and Drug Administration, will be inspected by Department of Agriculture or Quartermaster Corps inspectors whenever origin inspection of their products is made.

21. Assembly plants.

Principally, these are plants which assemble special-type rations. Before contracts are let, the assembly plants will be thoroughly inspected by a representative of the contracting officer. Contracts will be awarded only to plants which



meet sanitary and operating requirements. Quartermaster inspectors either will be stationed permanently in these plants or will make periodic inspections of their operations.



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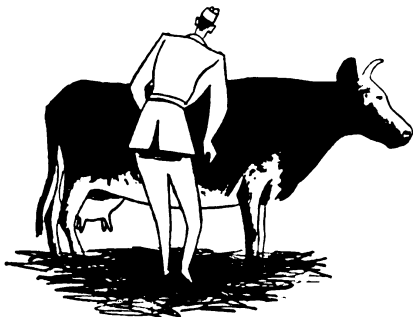
22. Dairy farms and milk plants.

a. Inspection policy.—The Veterinary Corps cannot routinely inspect every plant and dairy farm where purchased milk products originate. It is necessary to rely extensively on state and local inspection agencies administering the public health laws under which the establishments operate.

(1) *Where laws are adequate.*—If the laws are adequate to assure the production of sound, wholesome milk supplies, and are rigidly enforced, the establishments are approved. However, as a check on the efficiency of the civilian inspection agencies, veterinary officers may, from time to time, inspect an approved establishment for its compliance with accepted sanitary standards.

(2) *Where laws are inadequate.*—If the laws are considered inadequate, or if they are laxly enforced, farms and plants will not be approved unless they have passed a complete inspection by Army veterinary personnel. The inspection will be made within the calendar month preceding the submission of a bid on an Army contract.

b. Inspection procedure.—(1) *Dairy farms.*—When it is advisable to inspect dairy farms, a veterinary officer representing the purchasing market center, depot, or station will make the inspection. Included in the inspection will be a physical examination of all dairy cows, a check of the sanitary and operating conditions of the farm, and an observation of the apparent health of all employees.



(2) *Fresh-milk and ice-cream plants.*—Veterinary officers will be called upon to make inspections of fresh-milk and ice-cream plants. Such inspections will include an examination of bottling, pasteurizing, freezing (in the case of ice cream), and other processing operations. The veterinary inspector will see that the plant and its equipment are sanitary, and that all necessary measures are taken to prevent contamination of the product.

(3) *Milk-product plants.*—Plants which produce butter, cheese, and canned milk are frequently inspected by civilian Federal agencies, but they are not under continuous inspection. Therefore, when such plants sell to the Army they may be required to pass inspections by the Veterinary Corps. Inspections will be made as circumstances and conditions warrant.

23. Fish plants.

a. General inspection program.—In the principal fish-producing areas, fish plants operate under state and local sanitary regulations. All fish plants having Army contracts are subject, in addition, to inspection by Army veterinary personnel. Where special Army contract requirements must be met, veterinary inspectors may be stationed in the plants.

b. Processed oysters, shrimp and salmon plants.—The Food and Drug Administration plays an active part in the inspection of processed oysters, shrimp, and salmon plants. On request, canners of processed oysters and shrimp may obtain continuous inspection of their operations by food and drug inspectors. Salmon canneries in Alaska (where the bulk of salmon is produced) likewise may be periodically inspected by the Food and Drug Administration.

24. Storage points.

a. General.—Every establishment where food for the Army is stored will be inspected. Storage points include warehouses and cold-storage plants operated or contracted for by depots, market centers, ports of embarkation, and posts, camps, and stations. All points where meat, meat foods, and dairy products are stored will

be inspected periodically by veterinary officers. Other subsistence storehouses will be inspected by quartermaster storage officers, sales officers, and other officers having custody of the products. Inspection of storage points will normally be made whenever the condition of the stored products is checked. Any insanitary or otherwise improper storage conditions will be noted and necessary steps taken to have them immediately corrected.

b. Organization kitchens.—Food issued to units and organizations is meant for early consumption. However, because of last-minute menu changes or sudden decreases in troop strength, some items may have to be stored. It is the responsibility of mess officers and mess sergeants to see that kitchen storage space is sanitary and that stored food is properly cared for. Post surgeons or their representatives make frequent inspections of kitchens and mess halls.

25. Conveyances.

All freight cars, trucks, and ships used to transport subsistence for the Army will be inspected for suitability and condition. Inspections will be made when products are loaded at origin and unloaded at destination.



a. Origin inspection.—Veterinary and quartermaster inspectors who accept products at origin will see that they are properly loaded into cars, trucks, or ships suitable to transport them without spoilage or damage. When Department of Agriculture inspectors make origin inspections, they will be requested also to see that the products are properly loaded. This inspection will include icing, insulation, and ventilation will include (among other things) sanitary condition, precooling, icing, insulation, and ventilation of the vehicle, and methods of piling and bracing the load.

b. Destination inspection.—Receiving officers will check the condition of all conveyances in which subsistence products arrive. Factors to be looked for include opening temperature, quantity of ice in the bunkers, condition of door seals, and evidence of improper loading or bracing. Any off condition of the product caused by inadequate protection in transit may be sufficient reason for action against the carrier.



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SECTION VI

Inspection of meat and meat food products



26. General.

a. Agencies.—Meat and meat food products procured in the United States for the Army will be inspected by the Veterinary Service. Purchases of such supplies are normally restricted to plants which are operated under the supervision of the Meat Inspection Division, U. S. Department of Agriculture. It should constantly be kept in mind that meat and meat foods are highly perishable items, and therefore potentially dangerous.

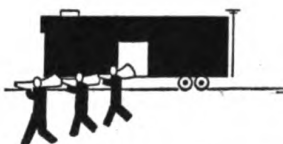
b. Inspections.—Meat may be obtained in fresh, frozen, cured, smoked, or canned form, or as manufactured meat products. These are broad categories, some of which contain a large number of individual items. Inspection requirements vary somewhat with the form and item and with the method of procurement. The paragraphs that follow, however, cover every type of inspection performed on meat and meat food products regardless of their nature or the method by which they are procured.

27. Ante-mortem and post-mortem inspections.

Neither of these types of inspection has any relation to quality or grade. They are made only to determine whether or not animals are fit for food.

a. Ante-mortem inspection.—Ante-mortem inspection is a valuable safeguard to the consumers of meat in that it affords a means of detecting "cold slaughtered" animals and animals affected with toxic or infectious conditions which might, on post-mortem examination, fail to present visible lesions. The inspection will be made in the pens of the stockyard where the animals are held prior to slaughter. Department of Agriculture representatives will usually be present to make the inspection. Otherwise, Veterinary Service inspectors will do the job. Animals that are obviously unfit will be rejected outright. Suspected animals will be tagged so that special post-mortem inspections can be made. While awaiting slaughter, such animals will be isolated

steps in a Typical Inspection of *Fresh Meat*

**1 PLANT INSPECTION****4 PRIOR TO PURCHASE****7 RECEIPT OTHER THAN PURCHASE****2 ANTE MORTEM****5 ON DELIVERY AT PURCHASE****8 ISSUE****3 POST MORTEM****6 PRIOR TO SHIPMENT****9 AT THE MESS HALL**

to prevent the possible infection of healthy animals.

b. Post-mortem inspection.—Post-mortem inspection protects the health of meat consumers by eliminating carcasses or parts thereof which are diseased, unsound, or otherwise unfit for food. The inspection will be made by a veterinary officer only when Department of Agriculture inspectors are not available. It will be performed on the killing floor immediately after slaughter. It will consist of a detailed examination of the glands, internal organs, and the animal body for pathological conditions not apparent when the animal was alive. When suspicious characteristics are noted, the carcass and its viscera will be held aside for further inspection. A special examination will then be made. If results show that the animal is unfit for food, it will be condemned.

28. Inspection prior to purchase.

a. When required.—This is an inspection of meat and meat products which are earmarked for the Army, but which will be purchased only if they fulfill the Army's requirements. It is limited almost entirely to processed meats, such as canned beef, and to manufactured meat products, such as sausage. It will not be made unless the purchase instrument stipulates it.

b. By whom made.—The inspection will always be performed by Army veterinary personnel. These inspectors will be notified by purchasing depots and market centers each time an inspection of this type is desired.

c. Nature of inspection.—The inspection is made primarily for type, grade, quality, and compliance with purchase specifications. It is best made at the point of shipment or place of manufacture. For processed or manufactured products, the inspection will include an examination not only of all ingredients but also of the processing operations. The suitability of cans, packages, and other containers will be carefully determined. All inspectors will observe the sanitary condition of plants and cause the contractor to correct any conditions which might contaminate the product.

29. Inspection on receipt at purchase.

a. Where made.—All meat and meat products will be inspected upon arrival at the Army installation to which they are shipped at purchase. Such installations include depots, market centers, camps, ports of embarkation, Army-owned or -operated warehouses, and commercial warehouses in which the Army contracts for space. Veterinary personnel will make the inspection immediately upon receipt of the products.

b. Nature.—Scope of the inspection depends upon whether the products were previously inspected at origin. If type, grade, quality, and compliance with contract requirements were determined at the point of shipment or place of manufacture, only a condition check will be made at destination. On the other hand, if no inspection was made at point of origin, final acceptance of the products will be determined by a complete inspection at destination. The Army meat-inspection program is so operated that in most cases origin inspections are made. However, meat supplies purchased locally by posts, camps, and stations, including supplies for Army exchanges and post concessions, are usually received without previous inspection.

30. Inspection prior to shipment.

All meats and meat products shipped from one Government installation to another (for example, from a market center to a camp, or from a depot to a port of embarkation) will be inspected at the time of shipment. The inspection will be made by a veterinary officer at the shipping point, and will assure that no insanitary or unsound products are shipped.

31. Inspection on receipt other than purchase.

Army-owned meat shipped from one Army installation to another will be inspected on delivery at the receiving installation. Since type, grade, and quality of the meat are already known from previous inspections, the destination inspection will be restricted to a condition check. It will be made by veterinary personnel of the receiving agency.

32. Inspection at issue or sale.

a. Issue.—When meat products are issued to troops at a post, camp, or station, the post veterinarian must be present to make a condition inspection. Since most items are consumed shortly after issue, this check for sanitary condition and soundness is usually the last Veterinary Corps inspection.

b. Sale.—Considerable quantities of meat and meat products are sold by station sales officers to exchanges, officers' messes, and authorized individual purchasers. Stocks of meat items in the sales commissary and at other selling points will be frequently inspected by the post

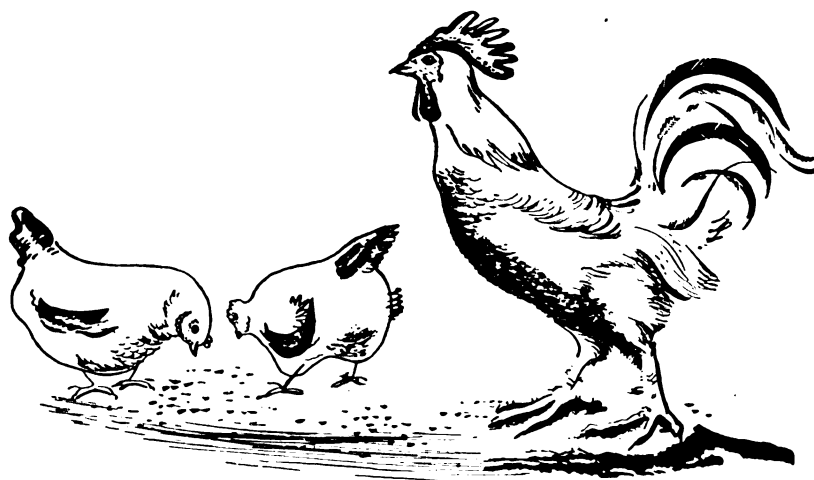
veterinarian to see that no contaminated or off-condition articles are sold.

33. Inspection during storage.

Canned, frozen, smoked, and cured meats and meat products are often stored for periods of several months. Even under ideal storage conditions, some deterioration may result. Regular inspections of such products will therefore be made by veterinary officers to detect off conditions caused by prolonged storage. Inspections should be made about every 30 days. In addition, products purchased on a reclamation basis will be inspected just before the expiration of the guaranty period so that claim can be made on the vendor for any spoiled items.

SECTION VII

Inspection of poultry and eggs



34. Types of poultry.

Poultry includes chickens, turkeys, ducks, geese, guinea fowl, and pigeons. The Army buys chickens and turkeys, principally. Normally, the purchase of chickens is limited to broilers, fryers, fowl, and roasters; the purchase of turkeys, to young toms and young hens.

35. Inspection of poultry.

a. Poultry plants.—All plants where eviscerated poultry is processed for the Army must have their operations and sanitary conditions inspected by personnel of the Department of Agriculture or of the Veterinary Service. Other poultry houses should be approved by the Veterinary Service as sources of supply before purchases are made.

b. Canned poultry.—This is inspected and handled throughout like canned meats. (See sec. VI.)

c. Chilled and frozen poultry.—(1) *Origin inspection.*—Vendors will be encouraged to secure origin inspections by the Dairy and Poultry Branch, War Food Administration, wherever it is available, or by the Veterinary Service. Upon request of a vendor, purchasing officers will arrange, in every possible instance, for origin inspection by an Army veterinarian. Eviscerated poultry will be given a post-mortem inspection either by Army veterinary inspectors or by veterinary personnel of the Dairy and Poultry Branch, War Food Administration.

(2) *Destination inspection.*—Unless inspected at origin, fresh and frozen poultry will be given a thorough inspection for final acceptance at first destination. A qualified veterinary inspector will make the inspection. Products passed at origin will be inspected at destination for quantity and condition.

(3) *Other inspections.*—After receipt, poultry will be given all required animal-prod-

ucts inspections. These include condition checks before shipment from one Army installation to another, upon receipt at every installation, at periodic intervals during storage, and at the time of issue or sale. In each case Army veterinarians will make the inspections.

36 Inspection of shell eggs.

a. Specifications.—All shell eggs are bought under Federal Specifications in accordance with the quality requirements of U. S. Procurement Grades issued by the Department of Agriculture. There are two categories of shell eggs—those purchased for immediate issue and those purchased for storage.

b. Origin inspections.—When origin inspections of shell eggs are required, they will be made by Army veterinary inspectors or by representatives of the Department of Agriculture.

(1) *Immediate-issue eggs.*—Carlot purchases of eggs for immediate issue must be inspected at origin, except in unusual circumstances where it is to the purchasing market center's advantage to waive inspection. When origin inspection is made, the vendor must furnish a properly executed inspection certificate. Eggs for immediate issue purchased in less-than-carload lots are not required to be inspected at origin, but vendors will be encouraged to secure such inspection whenever it is obtainable.

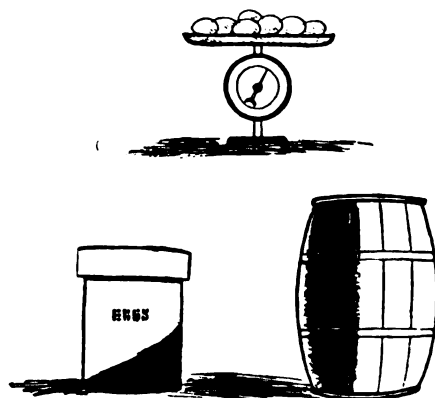
(2) *Eggs for storage.*—All eggs for storage, no matter in what quantity purchased, will be inspected at origin. This stipulation is written into every purchase order for storage eggs.

c. Destination inspections.—These will be made by veterinary officers at receiving agencies. As a general rule, eggs which meet contract grade requirements at origin are permitted to drop one grade between origin and destination. For example, eggs that pass as U. S. Procurement Grade I at origin are accepted at destination if they meet U. S. Procurement Grade II requirements. If origin inspection is not made, however, the eggs must conform at destination to the grade contracted for.

d. Other inspections.—Besides regular origin and destination inspections, shell eggs will be

given condition checks by veterinary officers under the following circumstances:

- (1) Upon shipment from a market center to a camp or other installation.
- (2) Upon receipt at the camp or installation.
- (3) At issue or sale.
- (4) During storage.



37. Inspection of frozen eggs and dried eggs.

a. General requirements.—Frozen eggs include frozen whole eggs, frozen yolks, and frozen whites. There are three dried egg products: spray-dried whole eggs, spray-dried egg yolks, and powdered albumen. Quartermaster Corps Tentative Specifications have been issued by the Chicago Quartermaster Depot to cover these items. Other applicable Federal and military specifications for raw materials, packaging, packing, and marking will also be followed. All products are required to comply with the provisions of Federal food laws and regulations promulgated thereunder.

b. Plants.—Egg-processing plants selling to the Army must be inspected and approved by the Veterinary Service. The Quartermaster Corps Subsistence Research and Development Laboratory, Chicago Quartermaster Depot, has established sanitary and operating standards which egg-drying plants must meet.

c. Origin inspection.—Frozen and dried eggs and egg products will be inspected by qualified

Army veterinary personnel during and after processing. All operations will be watched closely. Inspection will include laboratory analysis of samples for wholesomeness, bacteria count, keeping quality, and palatability.

d. Destination inspection.—Except under the most unusual circumstances, properly packed and shipped egg products will not drop in grade be-

tween origin and destination. Inspection at destination therefore need be made only for condition. Veterinarians at receiving agencies will make the destination inspections.

e. Other inspections.—After receipt by the Army, processed egg products will be given the inspections required for all products of animal origin. (See par. 36d above.)

SECTION VIII

Inspection of milk and dairy products



38. General.

a. Items.—Milk and milk products include fresh milk and cream, evaporated and condensed canned milk, powdered milk, ice cream and ice-cream mixes, butter, and cheese. All milk consumed by troops, whether in fresh or processed form, must be obtained from dairy plants approved by the Medical Department, U. S. Army.

b. Routine inspections.—In addition to the origin and destination inspections described in the paragraphs below, milk and milk products receive as many of the following condition inspections as are applicable to individual items:

- (1) Inspection prior to shipment from one Government installation to another.
- (2) Periodic inspection while in depot, market center, or station storage.
- (3) Inspection at issue or sale.

39. Fresh milk.

Posts, camps, and stations in most parts of the country procure fresh milk locally. In some states where troop concentration is heavy and milk supply is low, market centers arrange for

central procurement and distribution. No matter how procured, all deliveries of milk must conform to the provisions of Federal food laws and to applicable specifications. Inspection is always made at destination by the post veterinarian. If necessary, samples are sent to a depot or service command laboratory for analysis.



40. Canned milk.

There are two varieties of canned milk—evaporated milk and sweetened condensed milk. Inspection procedure for the two is the same. Army veterinary personnel may be called on to inspect the products at origin during processing

and packing. Chemical and bacteriological analysis, where required, will be made in depot, service command, or Department of Agriculture laboratories. At destination, the product will be inspected for condition only, if previously accepted; otherwise, for compliance with specifications and all contract terms.

41. Powdered milk.

Two grades — Premium and Extra — have been established by the Army for powdered whole milk and nonfat milk solids. Before contracts are let for Premium grade, samples of the product, package, and label must be approved by the Quartermaster Corps Subsistence Research and Development Laboratory. Unless otherwise stipulated in purchase instruments, inspection for grade, quality, and compliance with contract specifications will be made by veterinary officers at origin. At destination only a quantity and condition inspection is necessary.

42. Ice cream.

a. Ready-to-eat.—Ice cream and sherbets are procured locally by most posts, camps, and stations. The post veterinarian will usually inspect these products at destination, after approving the ice-cream plant as a source of supply. Ice cream which is centrally procured by market centers will be given a complete inspection by veterinary officers at receiving stations.

b. Ice-cream mixes.—These are procured in powder and in paste form. Awards will be made to contractors only after the Quartermaster Corps Subsistence Research and Development Laboratory has examined and approved the product, its package, and its label. During manufacture and packaging a veterinary officer will make continuous inspections to see that plant conditions are sanitary and that the quality of the product meets contract specifications. Products thus inspected at origin require at destination only an examination for condition by a veterinary officer.

43. Cheese.

Cheese is purchased according to official Department of Agriculture standards and pertinent

Federal and military specifications.

a. Natural cheese.—(1) *Origin inspection.*—Purchasing market centers will obtain, whenever possible, origin inspection of cheese by Army veterinarians. This inspection may include a weight check to determine shrinkage between time of manufacture and time of inspection. Samples of the cheese will be sent to the nearest depot or service command laboratory for a moisture-content analysis.

(2) *Destination inspection.*—At destination veterinary inspectors will observe the general condition of the cheese. If it is necessary, a second shrinkage test may be made.

b. Process cheese.—Quartermaster installations buy considerable quantities of process cheese. Most of this cheese goes into special-type rations, but some is for issue purposes. Inspection will generally be made at origin by a veterinary officer representing the procuring depot. Laboratory tests will be run if required. Cheese for special-type rations will be reinspected at assembly plants for type, quality, packaging, and compliance with specification and contract requirements. Process cheese received at posts, camps, and stations, will be inspected by veterinary officers for condition only.

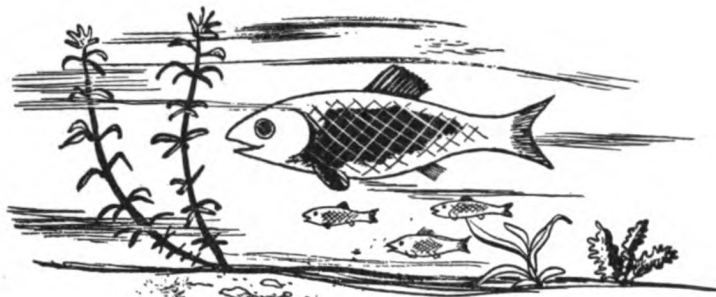
44. Butter and butter spreads.

a. Butter.—Origin inspection of butter is not required, but will be encouraged. When vendors make formal request, market centers will try to arrange for veterinary personnel to score butter at the place of manufacture. If origin inspection is not obtained, samples of every lot will be scored at destination by qualified veterinary officers.

b. Spreads.—Army spread and Carter's spread are made according to Army Specifications. Veterinary officers will be present to inspect the product during manufacturing and packing operations. Where required, melting-point tests and chemical analyses will be made in Army laboratories. A condition inspection will be made by veterinary officers at receiving installations.

SECTION IX

Inspection of fish and fishery products



45. Procurement.

Fish is bought in fresh, frozen, and canned form. Of the many varieties of fishery products, the Army buys principally fresh and canned oysters and shrimp. Dried, smoked, salted, or pickled fish and fishery products are seldom procured. Specifications for fish and fishery products are general in nature; for this reason inspectors must watch closely for special requirements written into individual purchase orders.

46. Fresh fish and fishery products.

a. Origin inspection.—Fish-buying market centers will arrange for origin inspection by the Veterinary Corps whenever possible. Special veterinary fish inspectors are available in most of the large fish-producing districts. Origin inspection will include a check of the sanitary condition of the fish plant and a close examination of items for wholesomeness, quality, and compliance with special contract provisions. Since fresh fish is highly perishable, particular care will be taken in observing the methods of packing and icing, and the suitability of all vehicles used for transport.

b. Destination inspection.—At destination, veterinarians will thoroughly examine fresh fish and fishery products for spoilage. If inspection was not performed at origin, the destination veterinarian must determine, besides condition, the type, grade, and quality of the products, and their compliance with all terms of the contract. The soundness of the products must be carefully checked again at the time of issue or sale.

47. Frozen fish and fishery products.

a. Origin inspection.—Frozen fish items are purchased extensively, since they keep better than fresh products and are easier to transport and prepare. All frozen items will be purchased from plants approved by the Veterinary Service. If possible, origin inspections by veterinary personnel will be arranged. Included in the inspection will be the sanitation of the freezing plant, the quality and wholesomeness of the raw fish, and the suitability of processing, packaging, and packing. The inspector should supervise the selection of refrigerated cars and trucks for shipment and the methods of loading, bracing, and protecting the products for their journey.

b. Storage inspections. — Frozen fish, like other frozen products, frequently remain for considerable periods in market center cold storage. Upon their arrival at the cold-storage plant, they will be inspected by the market center veterinarian. If the products previously received origin inspection, only a condition check will be required; otherwise, a complete inspection is necessary. The condition of the products will be determined periodically while in storage, and again just before shipment.

c. Destination inspections. — Veterinarians at receiving installations will see that frozen fish and fishery products are sound and wholesome when received and when issued or sold.

48. Canned fish and fishery products.

a. Acceptability inspections. — The Army does not ordinarily inspect canned fish and fishery products at origin. Acceptability inspections will be made by veterinary officers at destination

storage points. Representative samples of each shipment will be examined for type, grade, quality, condition, and compliance with all contract terms. When considered advisable, laboratory tests will be made. Subsequent to acceptance of the products, inspections will be made in the same manner as for canned meats. (See sec. VI.)

b. Canned processed oysters, shrimp, and salmon. — Three important elements of the canned-fish industry — the packing of processed oysters and shrimp and the importation of Alaskan salmon — are closely controlled by the Food and Drug Administration. Most of the canned processed oysters and canned shrimp are packed under continuous supervision of food and drug inspectors. The service is extended to canners of these products upon their request. Food and drug inspection of salmon packed in Alaska and received at ports of entry helps to assure their purity, wholesomeness, and proper branding.

SECTION X

Inspection of fresh fruits and vegetables



49. Procurement and inspection responsibilities.

Except for small quantities bought locally by station sales officers, all fresh fruits and vegetables are procured by market centers. Shipping-point inspections are made by arrangement with the Department of Agriculture, which maintains more than 30 branch offices in central producing areas and a corps of roving inspectors who move with the market. Other inspections are the responsibility of market center specialists, sales officers, and, at some stations, permanently assigned market center representatives.



50. Origin inspections.

a. Carlot purchases.—(1) *Inspection by the Department of Agriculture.*—Carlot quantities of fresh fruits and vegetables will receive a point-of-origin inspection by the Department of Agriculture wherever its services are available. Market centers will make this stipulation in all purchase orders. The purpose of this inspection is to assure that the product meets the desired grade and all special contract requirements. The vendor makes application to the Department of Agriculture for this inspection and must pay for it. As evidence of the inspection, he must attach a Federal inspection certificate to his invoice. If he does not furnish this certificate, he must be able to prove that Federal inspection service was unobtainable.

(2) *Inspection by marketing specialist.*—It may be known beforehand that a Department of Agriculture inspector will not be available to examine a particular carlot. If the shipping point is not too far away, a marketing specialist may make the origin inspection.

b. Less-than-carlot purchases.—Origin inspections of less-than-carlot shipments are optional with the vendor. For his own protection he may ask the Department of Agriculture to inspect the products for grade, and attach to his invoice a copy of the Federal inspection certificate. In most cases, however, the vendor does not initiate an inspection at origin, because the purchase order does not require it. Origin inspections are nevertheless desirable, especially where a vendor has regularly shipped fresh fruits and vegetables of borderline quality. To serve as a control on such vendors, market center specialists will make frequent, unannounced inspections either at the vendor's establishment or at the shipping point. This procedure will considerably cut down the number of rejections at destination.

51. Inspection at intransit holding points.

Most market centers operate assembly and distribution points where carlot and other bulk quantities are received and broken down for distribution to posts, camps, and stations. Upon arrival at these points and again before reshipment, fresh fruits and vegetables will be inspected by market center specialists.

a. Inspection on arrival.—When the products have received an inspection at origin for grade and quality, they will be inspected only for quantity and condition upon delivery at the assembly and distribution point. If no origin inspection was made, market center specialists at the assembly and distribution point will inspect for compliance with all terms of the contract.

b. Reshipment inspection.—Stocks of fresh fruits and vegetables sometimes remain in storage for several days at the assembly and distribution point. Deterioration may set in during this period. To make certain that products are not

shipped in an off condition, a market center specialist will inspect each lot for condition at the time of shipment. At the same time a check will be made to determine that proper quantities are shipped.

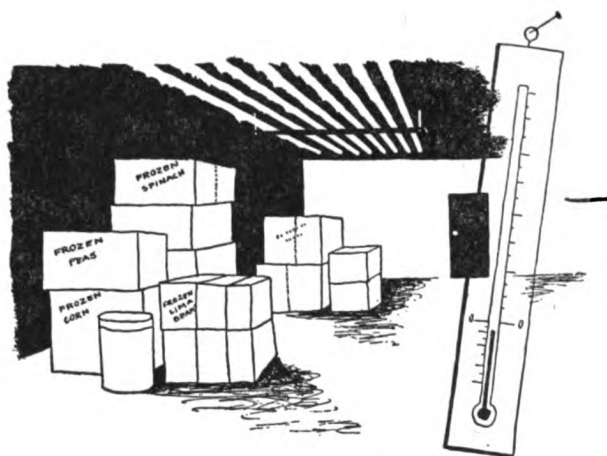
52. Destination inspections.

a. Inspection personnel.—At some stations an associate marketing specialist or an inspector representing the servicing market center may be permanently assigned. When either of these is present, he will make all required inspections of fresh fruits and vegetables received. At other stations the sales officer, or a member of his staff, may be trained by market center personnel in the methods of inspecting fresh fruits and vegetables. At these latter stations, if there is reasonable cause for rejecting a commodity, the sales officer will immediately notify the servicing market center. The market center will send a qualified inspector to advise the sales officer whether to accept or reject the articles.

b. Carlot purchases.—Nearly all carlots of fresh fruits and vegetables are given a quality (grade) inspection at the point of shipment. Such carlots will be inspected at destination for quantity and condition only. If origin inspection was not made, the products will be inspected at the station for compliance with all terms of the contract.

c. Less-than-carlot purchases.—Unless origin inspection was made, as evidenced by the receipt of a Federal inspection certificate, less-than-carlot shipments will be inspected at destination for compliance with all terms of the contract.

d. Local purchases.—Home-grown fruits and vegetables procured directly by sales officers will be inspected at destination for quality, condition, and quantity. When requested, market centers will furnish assistance if it is available.

SECTION XI**Inspection of frozen fruits and vegetables****53. Procurement program.**

Practically all quartermaster-procured frozen fruits and vegetables are bought by market center Field Headquarters, Chicago. Local market centers are authorized by Field Headquarters to purchase small quantities of frozen fruits and vegetables to round out the menus of posts and hospitals during certain times of the year.

54. Specifications and standards.

United States Standards for Grades, Quartermaster Corps Tentative Specifications, and Quartermaster Corps Packaging and Packing Specifications have been released to all packers and all interested U. S. Department of Agriculture inspectors. These requirements, together with competent inspection, assure the procurement of high quality products.

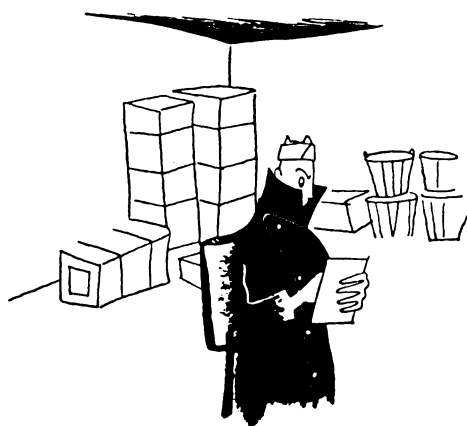
55. Field Headquarters purchases.

a. Origin inspections.—All frozen fruits and vegetables purchased by Field Headquarters will be inspected and graded at origin by a Department of Agriculture inspector. As soon as a packer is ready to deliver one or more carloads, he notifies the quartermaster canned foods buyer in his area, who will immediately request the Department of Agriculture to make an inspection of each lot involved. When the inspection is complete, the buyer will secure a certificate of grade. If possible, arrangements will be made to have the Department of Agriculture inspector supervise the loading of the products. This supervision will help insure their safe shipment.

b. Inspections at intransit holding points.—Field Headquarters procures frozen fruits and vegetables in bulk quantities. Since freezer space

at most posts, camps, and stations is limited, the products are shipped to strategically located cold-storage warehouses. Some of these warehouses are operated by local market centers as assembly and distribution points. Others are commercial establishments located near regional market centers. Frozen products shipped by Field Headquarters to intransit cold-storage warehouses are consigned to the accountable officer of the nearest market center.

(1) *Inspection upon arrival.*—When frozen fruits or vegetables are received at a cold-storage warehouse, they will be inspected for condition by a representative of the nearest office of the Department of Agriculture. Request for this inspection is made directly by Field Headquarters. The inspector will furnish two copies of a "special condition inspection report" to the accountable officer of the market center to which the products were consigned. The accountable officer will forward one copy to Field Headquarters.



(2) *Subsequent condition checks.*—Frozen fruits and vegetables are highly perishable and will spoil if not stored properly. Periodic inspections are therefore necessary. Every 90 days after the arrival of the products, as long as the original lot or a portion of it remains in storage, a follow-up condition check will be requested from the closest Department of Agriculture office. This inspection will cover the condition of the product, condition of the cartons, storage temperature and humidity, methods of piling, and all other storage factors. For each lot in-

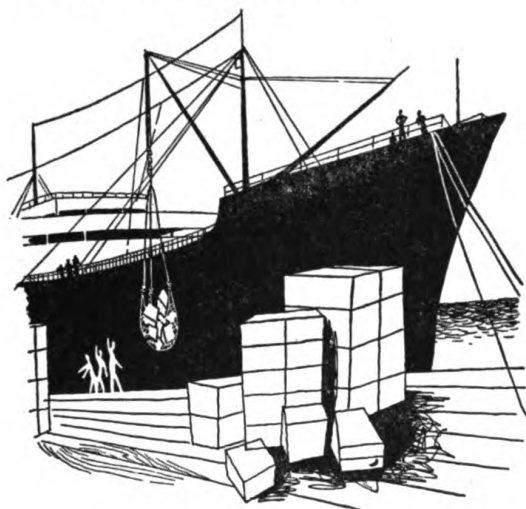
spected, a "special condition inspection report" will be obtained from the Department of Agriculture inspector. Any improper storage conditions disclosed by the inspection will be immediately corrected by the market center property officer.

(3) *Inspection at time of reshipment.*—No formal inspection is required when frozen fruits and vegetables are shipped from a cold-storage plant. However, it is the responsibility of the shipping officer to see that off-condition products are not sent to requisitioning agencies. Each lot will be examined by a representative of the cold-storage plant at the time of loading for shipment. Defrosted products, products with burst or torn cartons, or products otherwise obviously unfit for shipment will be removed.

c. Destination inspections.—(1) *At stations.*—Field Headquarters purchases of frozen fruits and vegetables received at a post, camp, or station will be inspected only for quantity and condition. The station sales officer will be responsible for making this inspection. As a general rule, serious defrosting is the only basis for rejection. Products showing slight defrosting usually may be refrozen without much damage to taste or texture. Even completely defrosted products will keep for 2 or 3 days, and may be eaten without danger to health. If the soundness of a product is doubtful, the sales officer will request an immediate inspection by the post surgeon. If the product is declared sound, the sales officer should accept it for emergency issue, in the interest of food conservation. Unsound products will be rejected. The sales officer will notify the servicing market center of all rejections. Pending action by the market center, he will keep the rejected products under suitable refrigeration.

(2) *At ports of embarkation.*—Large quantities of frozen fruits and vegetables are delivered to ports of embarkation for shipment overseas. Supplies are received by a port market center and held in freezer storage at least 7 days before they are forwarded to shipside. Port market center personnel will make a condition check when the products are loaded for delivery. On the day the shipment arrives in the port

yards, a final precautionary inspection will be made by a port officer appointed for the purpose. This inspection will include the temperature of each car, the quantity of ice in the bunkers, and the condition of the product. Products received in a defrosted state will not be sent overseas, but will be returned to the port market center for issue to posts, camps, and stations.



56. Purchases by local market centers.

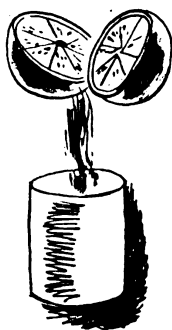
a. Grades.—Local purchases of frozen fruits and vegetables will be restricted to U. S. Grade A (Fancy) and U. S. Grade B (Extra Standard or Choice). Items for which United States grades have not been published will be completely and accurately described in purchase instruments so that both the vendor and the inspector will know exactly what is wanted.

b. Origin inspection.—All local purchases of frozen fruits and vegetables will be inspected at origin to determine quality and condition. Purchasing market centers will arrange to have the inspections made by the nearest office of the Department of Agriculture. Grade certificates will be obtained from the inspector.

c. Destination inspection.—Only a quantity and condition check will be necessary at receiving posts, camps, and stations. The station sales officer, or his representative, will make this inspection.

SECTION XII

Inspection of canned, dried, and dehydrated fruits and vegetables



57. General.

a. Items.—Processed fruits and vegetables include canned, dried, and dehydrated products, and fruit and vegetable juices, in addition to the frozen products discussed in section XI. Fruit and vegetable processing plants are located throughout the country. To maintain contact with the many packers who sell to the Army, quartermaster procuring depots employ traveling buyers who journey from plant to plant negotiating the purchase of acceptable lots.

b. U. S. Standards.—The Department of Agriculture has published grade standards for most canned and dried fruits and vegetables. These standards, modified by specifications and special contract requirements, are accepted by the Army. Trained Department of Agriculture inspectors also help in determining the grade and quality of products to be purchased.

c. Food and drug supervision.—The Army buys processed foods only from plants that meet the standards set by the Food, Drug, and Cosmetic Act of 1938. Purchasing officers can therefore normally assume that such foods are packed under sanitary conditions. It should be noted, however, that the limited force of inspectors makes it possible for insanitary conditions to develop before they can be checked by food and drug inspectors.

58. Canned and dried fruits and vegetables.

a. Origin inspection.—(1) *Procedure.*—In compliance with the wartime program of food allocation, packers of canned and dried fruits and vegetables and canned fruit and vegetable juices must set aside a given percentage of their packs for Government purchase. When a packer is ready to make deliveries to the Army, he notifies the procuring depot. Through its buyer or other

representative in the area the depot requests an inspection by the Department of Agriculture. This inspection will be primarily for grade and quality of the product, but will also include a general check of sanitary conditions, processing methods, labeling, marking, packaging, and packing. A more thorough inspection will be made of the packing and marking of products destined for export. If the product requires chemical analysis, this will be made in a laboratory designated by the Department of Agriculture.

(2) *Grade certificates.*—When inspection is finished, including laboratory analysis where necessary, the inspector will furnish to the procuring depot, through its local representative, a certificate of grade for each lot inspected. Acceptable lots are then purchased, and shipping instructions are forwarded by the purchasing depot. Some lots are shipped directly to posts, camps, stations, and ports of embarkation, and the remainder to regional distributing depots.

b. Depot inspections.—(1) *Upon receipt.*—Under normal conditions, properly packed and processed fruits and vegetables keep for long periods. It is unlikely that condition will change between the time of purchase and the time of receipt at a depot. For this reason, only a quantity check and a general examination for condition need be made upon the arrival of the products. The inspection will be conducted by the depot purchasing and contracting officer or a member of his staff. Opening cartons, cans, or packages will not be required unless it is apparent that the condition of the product has changed.

(2) *At the end of the reclamation period.*—At depots where processed foods purchased on a reclamation basis are stored, an inspection will be made just before the end of the reclamation period. The depot storage officer or a member of his staff will make the inspection to determine whether the condition of the products is satisfactory. Laboratory analysis will be made if necessary. Any deteriorated products found will be set aside and reported to the accountable officer for his further action.

(3) *When spoilage is suspected.*—When a lot of processed fruits or vegetables has remained in storage so long that its condition is subject to doubt, the storage officer or a member of his staff will make a condition inspection. Off-condition items will be held aside and the accountable officer notified. If any items are found to be approaching an off condition, they will be issued as quickly as possible to posts, camps, and stations, or transferred to another depot where speedy disposition is assured.

(4) *At time of shipment.*—When lots of canned and dried fruits and vegetables are loaded for shipment from the depot, an informal inspection will be made by the shipping officer or a person whom he designates. Neither cases nor containers need be opened to determine condition of the products, but items whose outward appearance indicates unfitness will not be shipped. Each shipment will be checked to see that requisitions are filled correctly.

c. Destination inspections.—(1) *On receipt.*—Upon arrival at a post, camp, station, or port of embarkation, processed fruits and vegetables will be inspected for quantity and for obvious signs of spoilage. Lots received from a depot and those received directly from a packer will get identical inspections. At a post, camp, or station the inspection will be made by the sales officer or a member of his staff; at a port of embarkation, by an officer appointed for the purpose. If the condition of any lot is suspect, samples will be pulled at random from the lot and sent to the appropriate regional depot for complete inspection. Pending action by the depot, the lot will be kept intact and stored separately from similar items in other lots.

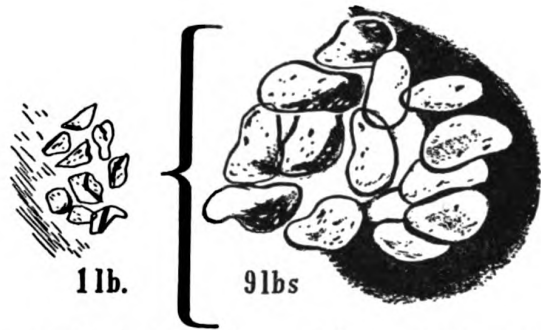
(2) *Subsequent inspections.*—Station stock levels of processed fruits and vegetables normally will not exceed 45 days' supply. Sometimes, however, small lots may accumulate and remain in storage for long periods. From time to time the regional depot may request that samples from long-stored lots be submitted for laboratory analysis to determine condition. If at

any time the sales officer is doubtful of the condition of products, he will not wait for the depot to make the request, but will immediately send representative samples to the depot for complete inspection.

59. Dehydrated fruits and vegetables.

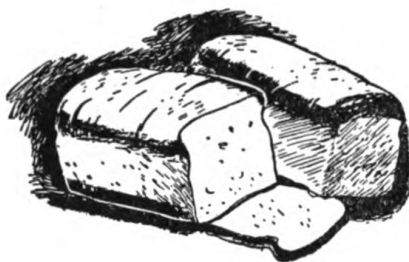
a. Pertinent specifications.—United States Standards have not been published for these items. They are purchased under Quartermaster Corps Tentative Specifications issued by the Office of The Quartermaster General and the three central procuring depots.

b. Plant supervision.—This is performed primarily by dehydration field supervisors, each of whom maintains contact with dehydration plants in a designated section of the country. On matters of procurement these men report to the procuring depots; on matters of production and technical operation they report to the Office of The Quartermaster General. Additional plant inspections are made by the Food and Drug Administration in the regular course of its activities, and by Department of Agriculture representatives.

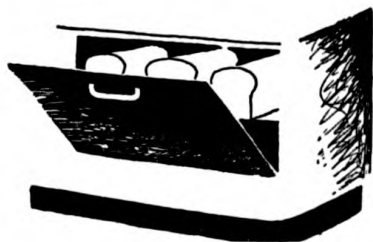


c. Origin inspections.—These will be made by the Department of Agriculture. In every case the inspection will include an analysis made in a Department of Agriculture laboratory. Special analyses will be made from time to time by the Quartermaster Corps Subsistence Research and Development Laboratory. Since nearly all dehydrated products are purchased for export, origin inspectors will pay particular attention to packaging and packing requirements.

d. Other inspections.—When products are accepted and shipped to Army installations, further inspections will be similar to those prescribed for canned and dried fruits and vegetables. (See par. 58.)

SECTION XIII**Inspection of cereals and baked products****60. Wheat flour.****a. Destination inspection and baking test.—**

Bulk quantities of flour for the Army are procured by the Chicago Quartermaster Depot. Inspection for type, grade, quality, and weight will ordinarily be made by quartermaster personnel at destination. In addition, the vendor will be required to submit samples of each lot to the Quartermaster Corps Subsistence Research and Development Laboratory. Here a baking test



will be run on each sample, and, where necessary, a chemical and microscopic analysis will be made. However, acceptance will not be delayed until results of this examination are known. It does not serve as a prerequisite to buying, but rather as a check on the miller. It tends to as-

sure the purchase of high-grade flour, since it may uncover defects of which the miller is ignorant and which destination inspectors have not the facilities to find. Millers will be required to correct such defects in subsequent lots.

b. Other inspections.—Flour does not quickly deteriorate. If properly packed and stored, it will keep until used. However, flour in storage should be inspected monthly for dampness, insect infestation, and other unsatisfactory conditions.

61. Other flours.

Whole-wheat flour, rye flour, buckwheat flour, and soya flour are purchased in small quantities. Depot procurements of these commodities will be inspected in the same manner as wheat flour, except samples will not be submitted to the Quartermaster Corps Subsistence Research and Development Laboratory.

62. Corn meal.

a. Central procurement.—Central procurements of corn meal will usually be inspected at origin by Department of Agriculture inspectors.

At destination, quartermaster receiving officers will make a careful inspection for condition, since corn meal does not keep well. If it is necessary to store this item more than a few weeks, it will be inspected as often as necessary to detect insect infestation and rancidity.

b. Local purchase.—Quite often corn meal is purchased locally by station sales officers. Inspection will be made at destination. Quartermaster personnel making the inspection will take every precaution to see that the product is of high quality and in good condition.

63. Rice.

Standards for rice have been established by the Department of Agriculture. Rice vendors notify the procuring depot through its local representative whenever a shipment is ready for the Army. Each rice vendor is required to furnish a certificate of grade issued by the Department of Agriculture, or by a licensee of that Department, for each lot of rice offered for shipment. At destination, receiving officers will inspect the rice for quantity and obvious signs of off condition. When rice is purchased locally, sales officers will inspect all lots for quality, grade, quantity, packing, packaging, and all requirements of the contract.

64. Barley.

The Army buys very little barley. When purchases are made by a depot, the inspection procedure will be the same as for rice: at origin, inspection by Department of Agriculture inspector for grade and quality; at destination, a quantity check and an examination for condition. Local purchases not inspected at origin will receive a complete inspection at destination.

65. Cereal products.

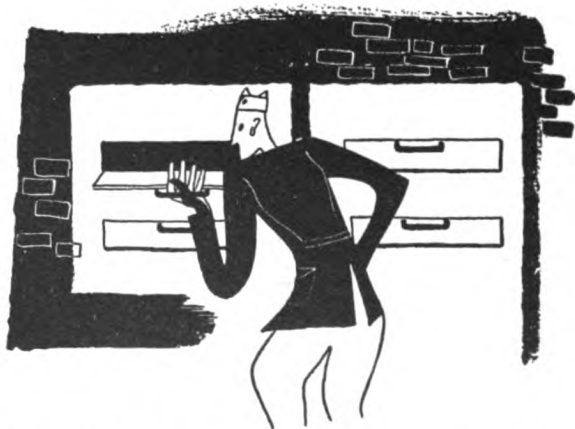
These include alimentary pastes (macaroni, spaghetti, noodles), flour mixes (pancake flours, etc.), breakfast cereals, corn-meal products (samp, hominy, hominy grits), and malt. Despite differences in manufacture, inspection of all these products is similar.

a. Origin inspections.—Origin inspection is not required on all cereal products, but will be encouraged. Vendors should secure Department of Agriculture inspection service where it is available. At some plants, trained quartermaster personnel make acceptability inspections. These will cover the condition of the plant and the suitability of all manufacturing, processing, and packing operations. Since most of the products are intended for zone of the interior consumption, commercial packaging and packing are generally acceptable.

b. Destination inspections.—If cereal products are previously inspected at origin, receiving quartermaster officers at depots and stations check them only for quantity and condition. Many of the products are relatively perishable and are shipped directly from the plant to posts, camps, and stations. If origin inspection was not made, inspection at destination should be complete.

66. Baked products.

a. Bread, pastry, and cakes.—Posts, camps, and stations without baking facilities purchase bread, pastry, and cakes locally. Before contracts are awarded, the sales officer should arrange to



have the post surgeon inspect the supplying bakeries to see that conditions are sanitary. The post surgeon should make additional inspections at intervals during the contract period. The products themselves are usually not inspected until they are received at the post. The sales officer or members of his staff will check every

lot for quantity and freshness. Frequent weight tests of individual items will be made. Occasionally samples may be sent to the nearest Army laboratory for analysis.

b. Commercial packaged cookies.—These may be procured and distributed by depots or purchased by camps from local wholesalers. When bought by depots from manufacturers, cookies usually receive an origin inspection by Department of Agriculture inspectors. Since these are products sold on the commercial market, it is generally safe to assume that the manufacturer, who values his reputation and who in most cases operates under Federal food laws, will turn out a wholesome product of acceptable quality. At destination, a quantity and condition check by receiving officers or their representatives will be sufficient.

c. Ration biscuits, crackers, and cookies.—

(1) *Origin inspection.*—These are baked according to rigid military specifications. They will be inspected at origin. Quartermaster inspectors, representing procuring depots, and Department of Agriculture inspectors are stationed in, or make periodic visits to, baking plants holding contracts for these items. The nature, quality, and soundness of all ingredients will be closely observed, as will the mixing, baking, wrapping, and packing operations. The sanitary condition of the plant and equipment must at all times be satisfactory.

(2) *Assembly-point inspection.*—When baked and packed, the items are shipped to ration assembly points. Here resident quartermaster inspectors check the condition of each product and its wrapping before authorizing its inclusion in the ration.

67. Leavening agents.

These include yeast, baking soda, and the several types of baking powders. They must conform to Federal food laws. Yeast may be inspected at origin by the Department of Agriculture. Inspection of baking powder and baking soda is nearly always made at destination by representatives of receiving quartermaster officers. Laboratory analysis, which frequently may be necessary, will be made in depot and service command laboratories.

68. Nutritional yeasts and bread-stabilizing compounds.

Before contracts are awarded, these items must be approved by the Quartermaster Corps Subsistence Research and Development Laboratory. Once tested and accepted by the laboratory, the products do not require an origin inspection. They will, however, be inspected at destination for compliance with specifications and all terms of the contract.

SECTION XIV

Inspection of miscellaneous products



69. Soups.

a. Canned.—Canned soups, both regular and concentrated, may be bought centrally by procuring depots, or locally by posts, camps, and stations under purchase notice agreements. In nearly every case soups containing meats will bear the inspection stamp of the Department of Agriculture. At destination these and other soups containing products of animal origin will be inspected for condition by the post veterinarian. The sales officer or his representative will make inspections of vegetable soups upon delivery.

b. Dehydrated.—(1) *Origin inspection.*—The bulk of all soups purchased by the Army is dehydrated. Procuring depots will arrange for origin inspection whenever possible. The inspections will be made by Department of Agriculture inspectors of processed foods, quartermaster specialists employed by purchasing depots, and/or veterinary personnel. Moisture-content analysis and other laboratory tests will be performed as required. The suitability of packaging for domestic and for overseas shipment will be determined.

(2) *Destination inspection.*—Soups accepted at origin will be inspected at destination for quantity and condition only. If no origin inspection is made, the products will be inspected at destination for compliance with specifications and all contract terms. The inspection will be conducted by quartermaster or veterinary personnel, depending upon the type of the soup.

70. Beverages.

Raw coffee, tea, and cocoa are imported. At ports of entry Food and Drug Administration inspectors determine whether each shipment of these products is wholesome. Unfit products are barred entry.

a. Coffee.—(1) *Inspections prior to purchase.*—Quartermaster buyers and Department of Agriculture inspectors at ports of entry determine the type, grade, and quality of coffee beans offered for purchase. Samples of each lot are sent to the Office of The Quartermaster General, where they are tested by professional coffee tasters for approval of quality, flavor, and aroma.

(2) *Inspection at depots.*—The purchased coffee beans are shipped to depots, where receiving officers make condition and weight inspections. After roasting (done at the depots and by commercial contractors), the coffee is distributed to posts, camps, and stations. Here the condition of the coffee is checked again to see that it is fresh and wholesome.

(3) *Soluble coffee.*—Soluble coffee will be inspected by quartermaster personnel during manufacture and processing. At ration assembly points and receiving depots, inspection is made only for condition of the product and the package.

b. Tea.—Standards for tea are set each year by the Food and Drug Administration. Only teas which meet these standards may be imported. At the plants of tea merchants selling to the Army, Food and Drug Administration tea testers determine the quality of each lot. At destination, quantity and condition will be inspected by quartermaster receiving officers.

c. Cocoa and cocoa beverage.—These items are graded and inspected for quality by Department of Agriculture inspectors before and during processing. Acceptance inspections of Army purchases will be made by quartermaster personnel at receiving depots and stations.

d. Fruit beverages.—These are natural and imitation fruit concentrates, purchased in liquid, powder, and crystal forms. They are procured under Quartermaster Corps Tentative Specifications issued by the Chicago Quartermaster Depot. Before contracts are awarded, samples of the products must be approved by the Quartermaster Corps Subsistence Research and Development Laboratory, which makes analyses for purity and content. Concentrates that are approved and purchased will be inspected for quantity and condition by quartermaster personnel at receiving depots.

71. Sugar and cornstarch.

a. Sugar.—Bulk purchases of the several varieties of sugars will be inspected at refineries and manufacturers' warehouses by Department of Agriculture representatives. At destination the

condition of the items will be inspected by receiving officers. Barrels, bags, and other packaging will be closely observed for breakage. During storage sugar should be examined frequently for signs of dampness and for damage caused by insects or rodents.

b. Cornstarch.—This item is centrally procured by the Chicago Quartermaster Depot. Department of Agriculture representatives will make origin inspections for grade, quality, and compliance with contract provisions. Condition and quantity checks will be made by quartermaster personnel at receiving installations.

72. Confections.

a. General.—This is a broad category, including candies, ration fruit bars, gelatin desserts, sirups, and chewing gum. If confections are inspected at origin, they will be examined solely for condition and quantity at destination. Otherwise, receiving officers will make complete acceptance inspections.

b. Candies.—The Department of Agriculture ordinarily will inspect central procurements of hard candies at the point of manufacture, and quartermaster officers will check for quantity and condition at destination. Other candies receive destination inspections only. Candies for resale purposes are usually purchased under commercial brand names. If purchases are made without specifying brand names, the submission of bid samples should be required. The samples will be inspected closely for flavor, type, and workmanship, and the samples of the successful bidder will be held for comparison with deliveries.

c. Sirups.—Corn sirup is inspected at origin by Department of Agriculture representatives. Cane, maple, and other sirups will be given acceptance inspections at destination. Sirups are not processed after canning, and therefore a somewhat higher rate of spoilage is to be expected than that found in most other canned foods. During storage, sirups will be inspected at least once a month for signs of deterioration.

d. Gelatin desserts.—Inspection will be made at destination.

e. Dehydrated pudding mixes.—These will be inspected at origin by quartermaster or Department of Agriculture personnel. As on all other dehydrated products, laboratory analysis will be necessary. This analysis will be made in depot, service command, or Department of Agriculture laboratories. Since pudding mixes are overseas items, inspectors will see that packaging and package requirements are rigidly fulfilled.

f. Ration fruit bars.—Department of Agriculture inspectors at point of origin will determine whether these items are acceptable. At ration assembly points resident quartermaster inspectors will inspect the fruit bars before authorizing their inclusion in the ration.

g. Chewing gum.—Commercial brands are purchased. Inspection will be made at destination.

73. Spreads.

These include jams and jellies, marmalades, and fruit butters.

a. Central procurement.—Quantities procured centrally will usually be inspected by Department of Agriculture inspectors during and after manufacture. Only a general examination for condition will be required at receiving depots and stations.

b. Local purchase.—In many cases these items are purchased locally under purchase notice agreements. Only recognized brands of reputable manufacturers should be bought. Inspection will be made upon receipt.

74. Flavoring agents.

a. Extracts.—(1) *Specifications.*—Flavoring agents are purchased according to Quartermaster Corps Tentative Specifications and such other military and Federal specifications and standards as may apply. All finished products are required to conform to the Federal Food, Drug, and Cosmetic Act and regulations promulgated thereunder.

(2) *Inspection.*—Inspection will be made at origin by a quartermaster inspector unless otherwise specified in the purchase instrument.

Before the ingredients are mixed, inspections of individual constituents will be made for compliance with pertinent specifications and standards.

b. Tablets.—(1) *Approval before purchase.*—In most cases a sample of the flavoring tablets to be purchased must be approved by the Quartermaster Corps Subsistence Research and Development Laboratory. Flavoring tablets are required to be manufactured according to the formula listed in the pertinent Chicago Quartermaster Depot Specifications. For any changes in the formula the approval of the Quartermaster Corps Subsistence Research and Development Laboratory is necessary.

(2) *Inspection.*—Unless otherwise specified, quartermaster inspectors will examine grade, packing, and condition of tablets on delivery. Chemical analysis may also be conducted if required by the purchase instrument.

75. Salt.

a. Table salt.—Inspection of table salt will be made at destination. All table salt purchased by the Army is iodized; from time to time samples may be submitted to depot or service command laboratories for determination of the iodide content.

b. Tablets.—Salt tablets are purchased under U. S. Treasury Department Procurement Schedules. Inspection will be made at receiving depots. Special care must be taken to see that packaging and packing of tablets for export purposes meet Army Specifications.

76. Spices and seasoning sauces.

a. Nature.—Spices is the general name given to a large number of items used to flavor foods. Some of the more common spices are pepper, cinnamon, garlic, ginger, horseradish, nutmeg, dry mustard, and cloves. Seasoning sauces include prepared table sauces and cooking sauces. They may be classified as tomato, Worcestershire, chop suey, pepper, mustard, and fruit sauces.

b. Inspection.—The purity of imported spices is assured by Food and Drug Administration inspectors at ports of entry. Spices (both

imported and domestic) and seasoning sauces are bought under commercial brand names, and will normally be inspected only at destination.



77. Edible fats and oils.

a. Lard and shortening products.—This subsistence group is purchased according to Federal and Chicago Quartermaster Depot Tentative Specifications. It includes products made from animal fat alone or from animal fat and/or vegetable oils. Specifications differentiate domestic and overseas packing.

(1) *Inspection of plants.*—Shortening which consists of fats of animal origin, in whole or in part, must be prepared only in establishments which are regularly supervised by the Meat Inspection Division, U. S. Department of Agriculture. When large Army contracts are being filled, the Veterinary Service also supplies inspectors, if available.

(2) *Place of inspection.*—Lard is generally inspected at point of origin, during process of manufacture and packing. Shortening products other than lard are usually inspected on delivery. However, contracts for either of these two types of shortening may specify inspection at any point or number of points which the purchasing officer may desire.

(3) *Scope of inspection.*—Product inspection consists of tasting, testing consistency, determining the melting point, observing color and odor, examining the methods of packaging and packing, and finally, making chemical analysis. Sanitation inspection covers the usual re-

quirements of the Department of Agriculture and the regulations of the Federal Food, Drug, and Cosmetic Act and regulations promulgated thereunder. Inspection on delivery will consist of a check for quantity, condition, and compliance with special contract terms.

b. Mayonnaise, salad dressings, and vegetable oils.—(1) *Procurement.*—Most procurements of these articles are made locally. Purchase notice agreements list branch offices of the contractors from whom purchasing and contracting officers will buy. Federal specifications issued for these items are referred to in all purchase instruments. Inspection will be made at destination.

(2) *Salad oils for export.*—Quantities of vegetable salad oils are centrally procured for overseas shipment. Inspection will be made at receiving depots and should include close observation of packaging and packing.

78. Pickles, relishes, and olives.

a. Specifications.—The Army purchases a relatively small number of the many varieties of these products. Federal Specifications have been published for two types of olives. Pickles and relishes are purchased according to Chicago Quartermaster Depot Tentative Specifications.

b. Inspection.—Department of Agriculture representatives are available to make origin inspections in some plants. In most cases, however, the products are not inspected before delivery to depots and stations.

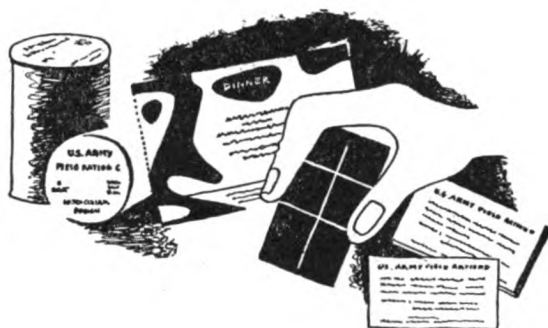
79. Vinegar.

a. Quality requirements.—Army-purchased vinegar must conform to the provisions of the Federal Food, Drug, and Cosmetic Act and regulations promulgated thereunder. It must be of high quality, free from preservatives, impurities, and artificial coloring. It must be prepared under modern sanitary conditions in accordance with good commercial practice.

b. Inspection.—Unless otherwise stipulated in contracts, vinegar will be inspected at origin by Department of Agriculture or quartermaster personnel. Inspection will be made at destination for quantity and condition only.

SECTION XV

Inspection of special-type rations

**80. Nature.**

Special-type rations are subsistence items especially designed by the Army to meet the needs of troops under unusual and difficult conditions. They have no ordinary counterparts in civilian products, and consequently present unusual problems in inspection.

81. Inspection of component parts.

Components of special-type rations will be inspected by officer and civilian inspectors of the Quartermaster Corps, officers and enlisted men of the Veterinary Service, and/or inspectors of the U. S. Department of Agriculture. Inspections for type, class, grade, sanitation, soundness, packaging, packing, marking, and any other details that apply will be made at point of origin or on delivery at the ration assembly plant, whichever is specified by the contract. Inspections at assembly plants will be made by resident quartermaster inspectors. Every component must be approved before it is included in the ration.

82. Inspection of assembling operations.

a. Scope.—All steps in final assembly of

special-type rations will be inspected. Inspectors will see that no required items, including printed directions, are left out, that suspicious articles are held aside for thorough investigation, and that all items unfit for consumption or likely to deteriorate quickly are eliminated.

b. Special tests.—The inspector will see that the contractor makes and records the results of all required tests of packaging and packing.

83. Inspection of finished ration.

Final inspection will be made prior to shipment from the assembly plant to filler depots, ports of embarkation, regional depots, and other holding points. This inspection will cover the state of the finished product and its compliance with specifications for the particular type of ration.

84. Inspection at destination.

Inspection at destinations in the interior will be made for quantity and condition only, unless otherwise specified by the contract. Quartermaster personnel representing the receiving officer will make the inspection.

SECTION XVI

Inspection of labeling and marking



85. Purpose and importance.

a. Purpose of labeling.—The purpose of labeling is to indicate the contents, weight, manufacturer, place of manufacture, and other information concerning a product. The label is attached to or printed on the product's immediate container.

b. Purpose of marking.—Marking appears on the box or other outside wrapping which encloses a number of individual containers. The purpose of marking is to identify the product and to give shipping and handling instructions.

c. Importance.—Improper marking may cause misdirection of supplies with resultant delay in delivery and the possibility of throwing an entire supply program off schedule. Unscrupulous dealers may try to defraud the Government by the use of false or misleading labels. Additional loss to the Government may be caused by incorrect weight markings by which the price of a product is determined and its transportation cost computed. It is the inspector's job to see that all labeling and marking of supplies are properly done.

86. Inspection.

a. Special labeling requirements.—Except for items purchased locally and consumed at posts, camps, and stations, the Army does not buy canned goods with commercial paper labels. Contractors are required to print or emboss on cans sufficient information to identify the products they contain.

b. General requirements.—(1) *Federal inspection.*—Food products shipped in interstate commerce must conform to the labeling requirements of Federal food laws and regulations promulgated thereunder. No misleading labels are permitted. Food and Drug Administration inspectors make periodic inspections to see that the food laws are followed. Department of Agriculture inspectors, when inspecting products for grade and quality, also see that labeling and marking requirements are met. The Livestock and Meats Branch, War Food Administration, requires that all products of animal origin which it inspects and passes be stamped with the establishment number assigned to the plant and the legend "U. S. Inspected and Passed" or an au-

thorized abbreviation thereof. When the nature of the product makes it impossible for a stamp to be placed directly on it, a domestic meat label conveying the same information may be used on the box or other container in which the products are packed for shipment.

(2) *Army inspection.*—(a) *By whom made.*—Inspectors of the Quartermaster Corps and the Veterinary Corps will examine labels and markings of subsistence items for fulfillment of labeling and marking requirements contained in applicable Federal and military specifications, and for all special provisions for individual purchase instruments.

(b) *When and where made.*—These inspections will be conducted during initial packaging and packing of the products after completion of the manufacturing process; at plants where field ration components are assembled; and at depots and other storage points prior to shipment to posts, camps, stations, staging areas, ports of embarkation, and other installations.

c. Scope of inspections.—The inspections will cover as many of the following points as apply, and any others that may be necessary:

(1) Legibility, neatness, size, and permanence of labels and marking.

(2) Nomenclature of product.

(3) Number, size, and/or weight averages of contents.

(4) Date packed (required only on certain products).

(5) Gross weight and cubic displacement.

(6) Consignor and consignee designations.

(7) Contract number and contractor.

(8) Correct placement of markings, and amount of space left for overseas markings.

(9) Correct application of crescent mark.

(10) Presence of such shipping tags, packing lists, inside markings, etc., as may be required.

(11) For dehydrated foods, inclusion of required directions for reconstituting the product.

(12) Presence of any special markings.

(13) Appearance of "Fragile" and other such markings that may be required.

(14) Elimination of old markings from previously used boxes.

(15) Elimination of advertising.

SECTION XVII

Inspection of packaging and packing



87. General.

a. Definitions.—(1) *Package*.—A package is the immediate container of a single item or set of items. It protects the product from dirt and against spoilage (hermetically sealed items only). Most packages, however, offer little protection against exposure to weather and the rough treatment incurred in transport.

(2) *Packing*.—Packing is the enclosing of a number of packages in a sturdy box or other container designed to protect the packaged items in transit and in storage.

b. Importance.—All the work of subsistence inspection is valueless if products are shipped without proper packaging and packing. Army inspectors must see that contractors perform packaging and packing operations in strict compliance with specifications.

88. Specifications.

a. Types used.—Federal and military specifications have been released for nearly every kind of package and packing. The Office of The Quartermaster General has published compilations of packaging and packing specifications for

subsistence and resale items destined for export. Individual requirements of particular contracts will be provided for by inclusion in purchase instruments. In some cases, usually for domestic shipment only, commercial containers are specified as acceptable.

b. Emergency substitutes.—Because of war-time shortages of packing and packaging materials, contractors may be unable to meet specified requirements. Substitutes may be offered. Before accepting a substitute, the inspector must determine first whether the substitute is adequate for the purpose intended, and second, whether it is acceptable to the purchasing agency. In no case will the inspector accept a substitute without getting the consent of the contracting officer concerned.

89. Inspection.

a. When and by whom made.—Inspection of packaging and packing is an integral part of products inspection and will be made at the same time by the same inspector. Wherever the acceptability of products is determined, the acceptability of packaging and packing is also determined. This is usually at the point of origin

or place of manufacture, but may be at destination. When inspected for acceptability at origin, packaging and packing will be given a condition check, along with the product, at every destination point and at prescribed intervals while in storage.

b. Scope.—Packaging and packing will be inspected for the following factors, or as many as apply, in addition to any others that may be necessary in particular cases:

- (1) Design, workmanship, and materials.
- (2) Proper weight.
- (3) Moisture content of lumber.
- (4) Proper number and application of straps or wires.
- (5) Nailing—type, size, and number of nails.

(6) Maximum utilization of capacity.

(7) Use of cushioning materials, pads, liners, partitions, etc.

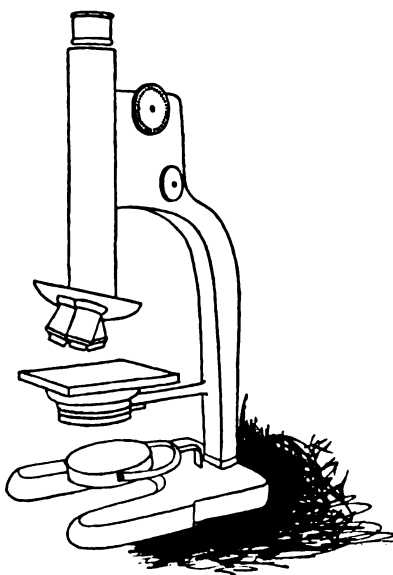
(8) Camouflage and protective coatings.

(9) Presence of box maker's compliance stamp.

(10) General condition (particularly at destination).

90. Trends of packaging and packing.

All Army subsistence inspectors must keep in close touch with the latest developments and revised specifications in packaging and packing. New materials, container designs, and protective measures are constantly being perfected by the industry and by Government agencies to safeguard shipments against all kinds of transportation and weather hazards.

SECTION XVIII**Laboratory inspection of subsistence****91. Depot laboratories.**

a. Location.—The three central food-procuring depots maintain laboratories equipped to make chemical and bacteriological analyses of all subsistence supplies. Some regional depots likewise have food-testing laboratories, although their facilities are not as complete as those at the central depots.

b. Use by depot personnel.—Depot purchasing and contracting officers and depot veterinarians make use of the laboratory facilities. Analyses may be required before the award of a contract, during production of commodities, and/or prior to Government acceptance of the finished products.

c. Use by other installations.—Subsistence stocks in storage at depots which do not have laboratory facilities, or at posts, camps, and stations may be sent to the depot laboratories for physical and chemical examination.

92. Service command laboratories.

These are under the direction of the service command surgeon. Each service command has a laboratory. The chief function of the laboratories is to make examinations and analyses for the Medical Department. However, they also make analyses and other tests of meat, meat foods, and dairy products for the Veterinary Service, and for installations located in the service command.

93. Post, camp, and station laboratories.

The post surgeons of all posts, camps, and stations have some laboratory facilities for food inspection. Designed primarily for routine analyses made in conjunction with regular medical care of troops, these laboratories can offer only limited service to food inspectors. They do, however, conduct such tests for station sales officers and veterinarians as their equipment and personnel make possible.

94. Quartermaster Corps Subsistence Research and Development Laboratory.

a. Operation.—This laboratory operates under the Research and Development Branch, Military Planning Division, Office of The Quartermaster General. As its name implies, its principal function is to develop new foods and improve old ones.

b. Inspection functions.—The laboratory aids in the task of food inspection chiefly by serving as a control on manufacturers and processors.

For instance, regular tests of purchased flour are made as described in section XIII. Before contracts for certain other products are awarded, the products must be tested and approved by the laboratory. After the contract is awarded, any changes in formula or method of manufacture must be similarly approved.

c. Mobile laboratory service.—A completely equipped mobile unit is operated by the laboratory. This unit is sent, when necessary, to conduct on-the-spot tests of products when a manufacturer is in difficulties. Such inspections expedite deliveries and help assure the procurement of quality products.

95. Department of Agriculture laboratories.

At appropriate points throughout the country the Department of Agriculture has established complete food-testing laboratories. When inspecting commodities for Army purchase as well as for civilian distribution, Department of Agriculture inspectors frequently send samples to these laboratories.

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